

**ARCHEOLOGICAL SURVEY AND SITE REASSESSMENTS  
IN THE CLABBER CREEK AND JACK MOUNTAIN RANGES  
OF THE LIVE FIRE AREA,  
FORT HOOD, TEXAS**

by  
**Kyle Killian**  
and  
**Marie E. Blake**



**United States Army Fort Hood  
Archeological Resource Management Series  
Research Report No. 45**

2001

**DISTRIBUTION STATEMENT A**  
Approved for Public Release  
Distribution Unlimited



**20010730 056**

**ARCHEOLOGICAL SURVEY AND SITE REASSESSMENTS  
IN THE CLABBER CREEK AND JACK MOUNTAIN RANGES  
OF THE LIVE FIRE AREA, FORT HOOD, TEXAS**

by

Kyle Killian

and

Marie E. Blake

**United States Army Fort Hood  
Archeological Resource Management Series  
Research Report No. 45**

March 2001

## TABLE OF CONTENTS

EXECUTIVE SUMMARY .....	vii
ABSTRACT .....	ix
ACKNOWLEDGMENTS .....	x
CHAPTER 1: INTRODUCTION .....	1
Environmental Setting .....	1
Archeological Background .....	4
Methods of Investigation .....	5
Field Methods .....	5
Laboratory and Analysis Methods .....	8
CHAPTER 2: RESULTS OF SURVEY AND SITE ASSESSMENTS .....	11
Isolated Finds .....	11
Site Descriptions .....	11
41CV421 .....	11
41CV423 .....	17
41CV424 .....	17
41CV425 .....	19
41CV445 .....	21
41CV450 .....	22
41CV466 .....	24
41CV583 .....	28
41CV712 .....	28
41CV719 .....	29
41CV791 .....	30
41CV952 .....	32
41CV1475 .....	34
41CV1621 .....	37
41CV1622 .....	39
41CV1623 .....	39
41CV1625 .....	43
41CV1626 .....	43
41CV1627 .....	44
41CV1628 .....	44
41CV1629 .....	45
CHAPTER 3: SUMMARY AND NATIONAL REGISTER RECOMMENDATIONS .....	47
Historic Sites .....	47
Prehistoric Sites .....	49
REFERENCES CITED .....	53

## LIST OF FIGURES

1. Project area map .....	2
2. Map of previously surveyed grids within the current project area .....	5
3. Map of the project area showing surveyed portions .....	7
4. Selected projectile points collected .....	14
5. Site map of 41CV421 .....	15
6. Site map of 41CV425 .....	20
7. Site map of 41CV450 .....	23
8. Site map of 41CV466 .....	26
9. Site map of 41CV719 .....	31
10. Site map of historic component of 41CV952 .....	33
11. Site map of 41CV1475, New Graham Cemetery .....	36
12. Site map of 41CV1621 .....	38
13. Site map of 41CV1622 .....	40
14. Site map of 41CV1623 .....	42

## LIST OF TABLES

1. Summary of sites investigated .....	3
2. Summary of work accomplished .....	12
3. Summary of artifacts collected .....	13
4. Summary of artifacts collected from 41CV421 .....	16
5. Summary of projectile points collected from 41CV424 .....	18
6. Summary of artifacts collected from 41CV466 .....	27
7. Summary of artifacts collected from 41CV1622 .....	41
8. Summary of previous archeological integrity assessments and National Register evaluations for previously recorded historic sites .....	48
9. Summary of National Register assessments and management recommendations for historic sites .....	50
10. Summary of National Register assessments and management recommendations for prehistoric sites .....	51

## **EXECUTIVE SUMMARY**

### **WHAT IS THIS REPORT?**

This report was prepared by Prewitt and Associates, Inc., Cultural Resources Services, of Austin, Texas, for the Directorate of Public Works, Environmental Management Office, Fort Hood under contract with the U.S. Army Corps of Engineers, Fort Worth District. The work was completed in compliance with the *United States Army Cultural Resource Management Plan for Fort Hood, Texas: Fiscal Years 1995–1999*, a document that outlines the goals of Fort Hood's Cultural Resources Management Program. One of those goals is “to locate and evaluate the significance of archeological sites located on the Fort Hood military reservation and to identify rapidly all those that meet the criteria for inclusion on the National Register of Historic Places.” The archeological investigations described in this report were conducted to help Fort Hood achieve this goal, and the investigated sites were selected by cultural resources managers with Fort Hood's Directorate of Public Works.

The 1999 reassessment of five selected prehistoric sites and survey of selected tracts within a proposed range construction zone within the live fire area of Fort Hood are reported herein. Using the criteria of the National Register of Historic Places (NRHP) as the yardstick to measure the importance (or research potential) of historic and prehistoric archeological sites, these investigations were done to recommend sites as eligible for, potentially eligible for, or not eligible for listing in the NRHP. Sites recommended as eligible need to be managed (i.e., protected and preserved) by the U.S. Army, while those recommended as not eligible require no further consideration. Those sites recommended as potentially eligible for listing must be managed by the U.S. Army (i.e., treated as if they are eligible) until such time as they can be more fully investigated and a determination of eligible or not eligible can be made.

### **WHAT WORK WAS DONE?**

A 1,729-acre pedestrian survey was conducted to search for archeological sites, and reassessments were conducted at five prehistoric sites to determine whether they might warrant additional, more-intensive archeological testing. Reconnaissance consisted of visual inspection of the ground surface and all natural and artificial subsurface exposures to evaluate site geology and geomorphology. When appropriate, systematic shovel testing was conducted to sample the upper ca. 80 cm of sediments. No subsurface testing was warranted at most sites due to a lack of deposits. Site maps were produced, and site locations were recorded using a GPS system. Based on this work, recommendations of National Register eligibility were formulated.

### **WHAT ARE THE RESULTS?**

This project resulted in the recordation of 8 new sites and revisit/reassessment of 13 previously recorded sites. These 21 sites encompass 23 separate components: 8 sites have only historic components, 11 have only prehistoric components, and 2 have both historic and prehistoric components. Of the 23 components assessed, 13 prehistoric and 2 historic components were found to have no viable archeological research potential and are recommended as not eligible for listing in the NRHP. Two historic components contain significant archeological remains and/or historic significance due to their association with important events or people and are recommended as eligible for listing on the NRHP. The other six historic components may contain significant archeological potential, but this cannot be demonstrated without additional archeological work and accompanying archival research. These are recommended as potentially eligible and require further archeological testing conducted under the guidance of a historic sites research design and data recovery plan.

## WHAT ARE FORT HOOD'S RESPONSIBILITIES?

With concurrence of the Texas State Historic Preservation Officer, no further management is required for the sites recommended as not eligible. Sites recommended as potentially eligible may require additional archeological investigation and archival research to determine their research potential and historical associations. The U.S. Army is responsible for managing these sites until this phase of work can be completed. The U.S. Army is also responsible for preserving and protecting all National Register-eligible sites. If eligible sites cannot be protected from current or future impacts, the adverse effects of these impacts must be mitigated. Impacts to archeological resources that must be taken into consideration include, but are not limited to: (1) ongoing training involving tanks and other tracked vehicles; (2) all types of training activities and vehicular traffic that accelerate erosion of existing roads/tank trails; (3) project-specific activities such as the construction of buildings or other facilities, construction of roads, and clearing of cedar or other unwanted vegetation; and (4) cattle grazing, looting, and other nonmilitary activities. Potential impacts to NRHP-eligible or potentially eligible sites due to changes in the intensity or nature of training activities must also be taken into account. In addition, the investigations reported herein provide additional evidence that looting of archeological sites and removal of cultural artifacts from Government property are ongoing problems to be addressed.

Of the 23 archeological components investigated in the live fire area project, only 8 of the historic sites will require additional management by the U.S. Army. The NRHP recommendations for these sites are summarized below. Additional work recommended for each of these sites consists of (1) archival and/or oral history research to define historical association and dates of use/occupation and (2) appropriate archeological work conducted under the guidance of a historic sites research design and data recovery plan.

Site Number	Site Type	NRHP Recommendation
41CV421	farm/ranch	potentially eligible
41CV425	farm/ranch	eligible
41CV450	farm/ranch	potentially eligible
41CV466	farm/ranch	potentially eligible
41CV952	farm/ranch	potentially eligible
41CV1475	cemetery	eligible
41CV1621	farm/ranch	potentially eligible
41CV1623	farm/ranch	potentially eligible

## **ABSTRACT**

In 1999, Prewitt and Associates, Inc., conducted an archeological project in the Clabber Creek and Jack Mountain Ranges of the live fire area on Fort Hood, Texas. Investigations consisted of an archeological field survey of 1,729 acres and reassessment (and shovel testing in some cases) of five previously recorded prehistoric sites. The project resulted in the documentation of 8 new sites and revisit/reassessment of 13 previously recorded sites. Components defined at these 21 sites include 10 historic components and 13 prehistoric components. The 13 prehistoric components are recommended as not eligible for listing on the National Register. Of the historic components, 2 are recommended as not eligible, 6 are recommended as potentially eligible, and 2 are recommended as eligible.

## **ACKNOWLEDGMENTS**

Fort Hood military personnel were essential to the successful and safe completion of this live fire area survey and site assessment project. Dr. Cheryl Huckerby, director of the Cultural Resources Management Program at Fort Hood, oversaw the project and coordinated planning with the G3 Training Program, the Explosive Ordnance Disposal (EOD) unit, and the Department of Public Works. EOD personnel cleared all areas (i.e., located and detonated live ordnance) before the archeological team was allowed to enter, and they provided escorts at all times in the field. Our key EOD contact in the field was Sergeant Bratner. Karl Kleinbach, also with the Cultural Resources Management Program, assisted in training our staff to use the global positioning system (GPS) equipment and provided large scale air photo maps for use in the field. When the fieldwork was complete, he assisted us in downloading the GPS data, creating site plotting files, and adding the site location data to Fort Hood's geographic information system.

This work was contracted through the Fort Worth District U.S. Army Corps of Engineers and coordinated by Stephen Austin, the Contracting Officer's Representative. Archeology Division staff archeologist, Ed Baker, served as project reviewer for the Texas Historical Commission.

Douglas K. Boyd served as Principal Investigator, and Kyle Killian as Project Archeologist. Greg Cestaro was part of the survey crew and filled in as Project Archeologist for a short time when Mr. Killian could not be there. Mr. Cestaro also operated the GPS unit to obtain precise coordinates on all sites. Other crew members on the project were Dennis Glynn, Jonathan Grant, Weldon Hammond, and Janee Taylor. Marie E. Blake reviewed site information and assessed the historic sites. Elton Prewitt identified projectile points, while historic artifacts were identified by Ms. Blake. This report was edited by Mr. Boyd and Melissa Keenan. Artifact photographs were taken by Jack Rehm, and Sandy Hannum and Brian Wootan created the illustrations.

# INTRODUCTION

## 1

In September and October 1999, personnel from Prewitt and Associates, Inc. conducted an intensive archeological survey of 1,729 acres (estimated using ESRI ArcView GIS 3.2) and performed site reassessments in a portion of the live-fire impact range on Fort Hood, Texas (Figure 1). In addition, five prehistoric sites located nearby but outside the survey area were revisited and reevaluated. Planned construction of a digital target range in the Jack Mountain and Clabber Creek Ranges of the impact zone necessitated this work. The range project was being conducted for Fort Hood through the G3 Training Program, but specific locations of construction activities and levels of impact that these activities would cause had not yet been determined. The proposed project area included the northern edge of training area 83, the southern edge of training area 82, and a northeastern section of training area 94 (PK grids 54,17–20; 55,18–20; 56,18–20; and 57, 18-20). Some portions of the project area had been surveyed previously, but most had not. Eight new sites were discovered and 13 previously recorded sites (both in and outside the survey area) were reevaluated. Table 1 summarizes the new and previously recorded sites encountered during this project.

### ENVIRONMENTAL SETTING

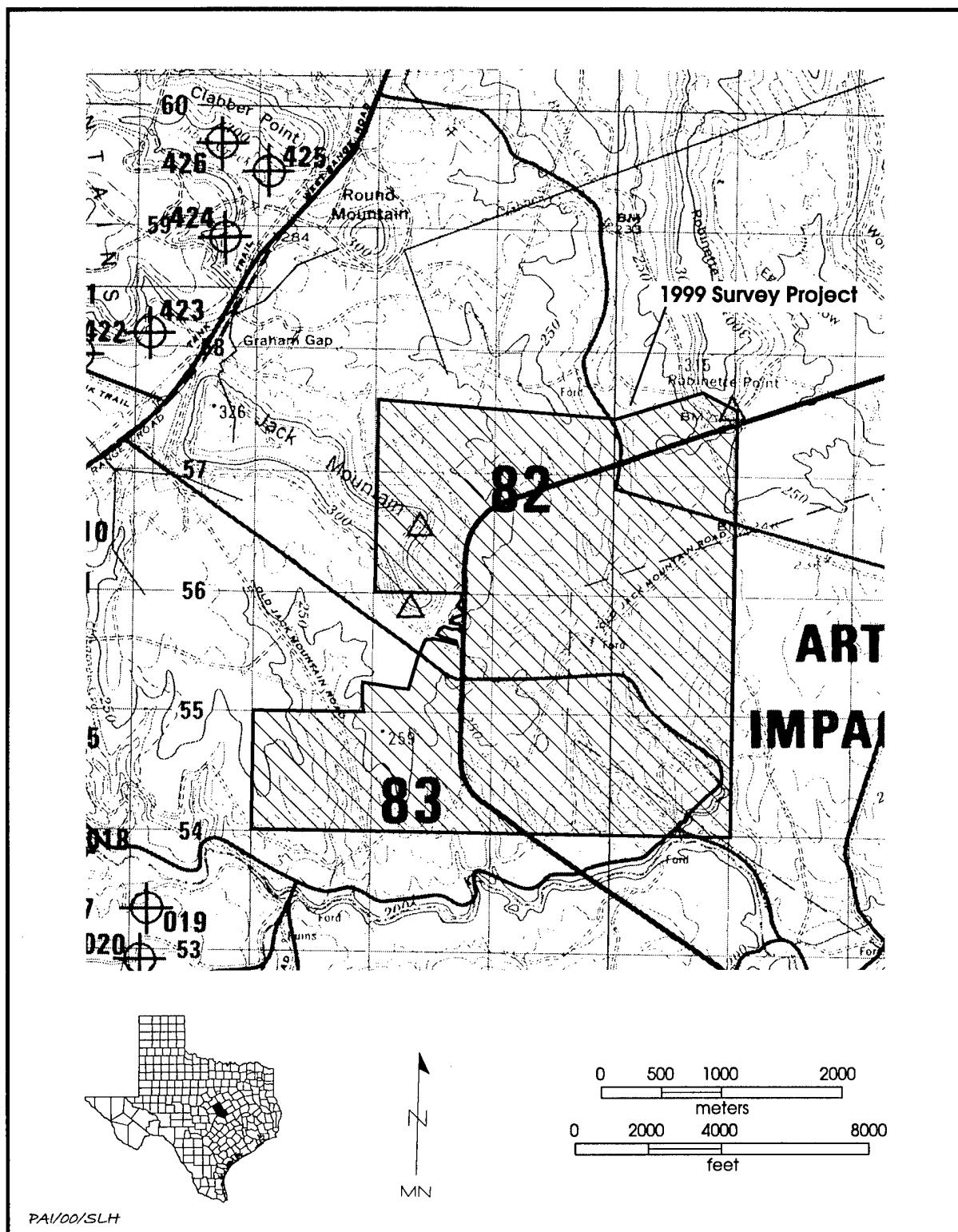
The modern climate of Fort Hood consists of hot, humid summers and relatively short, dry winters (Natural Fibers Information Center 1987:6). Winds blow most often from the south, and precipitation is concentrated in the late spring and early fall. Fort Hood is situated just west of the Balcones fault zone and exhibits distinct differences in soil and vegetation as compared to areas to the east of the fault. Because

of its location on this geologic boundary, the flora and fauna at Fort Hood represents a mix of species from the Blackland Prairie to the east and the Edwards Plateau to the west (Blair 1950). Because it is west of the fault zone, Fort Hood lies on top of relatively flat-lying layers of cretaceous rocks. The resulting landscape, the Lampasas Cut Plain, is dominated by broad high uplands (Manning surface) and intermediate uplands (Killeen surface) incised by modern stream valleys 40–70 m deep (Hayward et al. 1990; Nordt 1992).

Differential erosion has given rise to a variable topography that supports dense juniper and oak woodlands on the east side of the base, more open areas on the uplands to the west and south, and grasslands on the intermediate slopes. The majority of the current project area is located on intermediate slopes in the south-central portion of the base and is therefore dominated by grasslands.

The project area encompasses the southwestern end of Jack Mountain, an upland erosional remnant forming a prominent mesa, and a small portion of the southern slope of Robinette Point (another prominent mesa). The high uplands are defined by Nordt (1992) as the Manning surface, an ancient surface that formed at least as early as the Miocene. The mesas are comprised of Cretaceous-age Edwards Limestone and Kiamichi Clay, and the Edwards formations commonly contain chert nodules and layers. The sediment cover on the mesa tops and slopes is defined as the Eckrant-Real-Rock series and is limited to “very shallow to shallow, gently sloping to steep, cobbly and gravelly, clayey and loamy soils and rock outcrop” (McCaleb 1985:5). Thus, the mesa tops and talus slopes around them may contain lithic procurement

*Archeological Survey and Site Reassessments in the Live Fire Area*



**Figure 1.** Project area map.

**Table 1. Summary of sites investigated**

Site	Historic Components	Prehistoric Components	Field Site Number	Reference
<b>REVISITED SITES</b>				
41CV421	farm/ranch	—	368	Dibble et al. 1989:Appendix I
41CV424	—	lithic scatter	371	Dibble et al. 1989:Appendix I
41CV425	farm/ranch	—	372	Dibble et al. 1989:Appendix I
41CV445	farm/ranch	lithic scatter	401 (h)	Dibble et al. 1989:Appendix I
41CV450	farm/ranch	—	408	Dibble et al. 1989:Appendix I
41CV466	farm/ranch	—	428	Dibble et al. 1989:Appendix I
41CV952	farm/ranch	lithic scatter	1403 (h)	—
41CV1475	cemetery	—	1235	Carlson et al. 1987:117–118
<b>SHOVEL TESTED SITES*</b>				
41CV423	—	lithic scatter	370	Dibble et al. 1989:Appendix I
41CV583	—	rockshelter	642	—
41CV712	—	open campsite	810	Carlson et al. 1986:117–118
41CV719	—	lithic scatter	828	Carlson et al. 1986:121–122
41CV791	—	rockshelter	1229	Carlson et al. 1987:198
<b>NEWLY RECORDED SITES</b>				
41CV1621	farm/ranch	—	—	—
41CV1622	farm/ranch	—	—	—
41CV1623	farm/ranch	—	—	—
41CV1625	—	lithic scatter	—	—
41CV1626	—	lithic scatter	—	—
41CV1627	—	lithic scatter	—	—
41CV1628	—	lithic scatter	—	—
41CV1629	—	lithic scatter	—	—

\* These five sites were originally slated for assessment and shovel testing. Site 41CV423 is located in the survey area, while the other four are located outside, but in close proximity to, the survey area.

(h) Indicates that the field site number was assigned only to the historic component.

areas (i.e., natural chert outcrops with evidence of prehistoric utilization) or surficial lithic scatters, but have little or no potential for intact buried archeological remains. Rockshelters, formed by differential erosion of various layers of limestone, are often found along the bluff edges just below the Manning surface. These have a greater potential for containing significant archeological remains.

The remaining 95 percent of the project area is comprised of an eroded landscape defined by Nordt (1992) as the Killeen surface. This undu-

lating surface was formed, probably during the early to middle Pleistocene, by tributary erosion that caused the lateral retreat of the Edwards Limestone and Kiamichi Clay. The Killeen surface, which is drained by Brown's and Hargrove Creeks, along with other unnamed tributaries to Cowhouse Creek, is an ancient surface that commonly contains redeposited limestone and chert gravels overlying limestones of the Walnut Clay Formation. This surface contains Nuff soils, described as “very stony silty clay loam . . . on the sides of low ridges and stream divides,” and

Doss-Real complex soils, described as “shallow, loamy, and gently sloping to sloping” with common limestone pebbles and gravels (McCaleb 1985:24, 19–20). Lithic procurement areas or lithic scatters may be found on the Killeen surface, but there is little potential for finding intact buried prehistoric deposits.

Within the project area, the sediments along Brown’s Creek are characterized as Krum silty clay. These may be deeper (i.e., over 2 m), with more potential for containing intact archeological remains. The sediments along the smaller tributaries are characterized as thin Real-Rock complex soils that have a low potential for intact archeological remains (McCaleb 1985:22–27).

## ARCHEOLOGICAL BACKGROUND

Previous archeological work in the vicinity of the project area consists of surveys conducted by the Texas Archeological Survey in 1980 (Dibble et al. 1989) and by Texas A&M University in 1984 (Carlson et al. 1988). These surveys were undertaken in areas defined by the PK grid system (square kilometer blocks). Their purpose was to begin a comprehensive assessment of cultural resources at Fort Hood; of the 13 PK grids included in the current project, 5 had been surveyed in 1980 and another in 1984 (Figure 2). The previous surveys used Universal Transverse Mercator (UTM) coordinates based on the North American Datum (NAD) of 1927, whereas the current survey follows coordinates based on the NAD of 1983 and World Geodetic System (WGS) of 1984. Consequently, the old survey blocks are skewed in relation to the new UTM grid. For Fort Hood, conversion of NAD 83/WGS 84 coordinates to NAD 27 coordinates involves adding 32 m to Easting and subtracting 204 m from Northing.

Previous research at Fort Hood (see Jackson 1994; Trierweiler et al. 1995) and across Central Texas (see Black et al. 1997; Collins 1995; Ellis et al. 1994) provides a contextual framework for understanding prehistoric resources on Fort Hood. The research context and National Register assessment criteria for prehistoric sites on Fort Hood have been set forth by Ellis et al. (1994) and are summarized in Kleinbach et al. (1999:20–21).

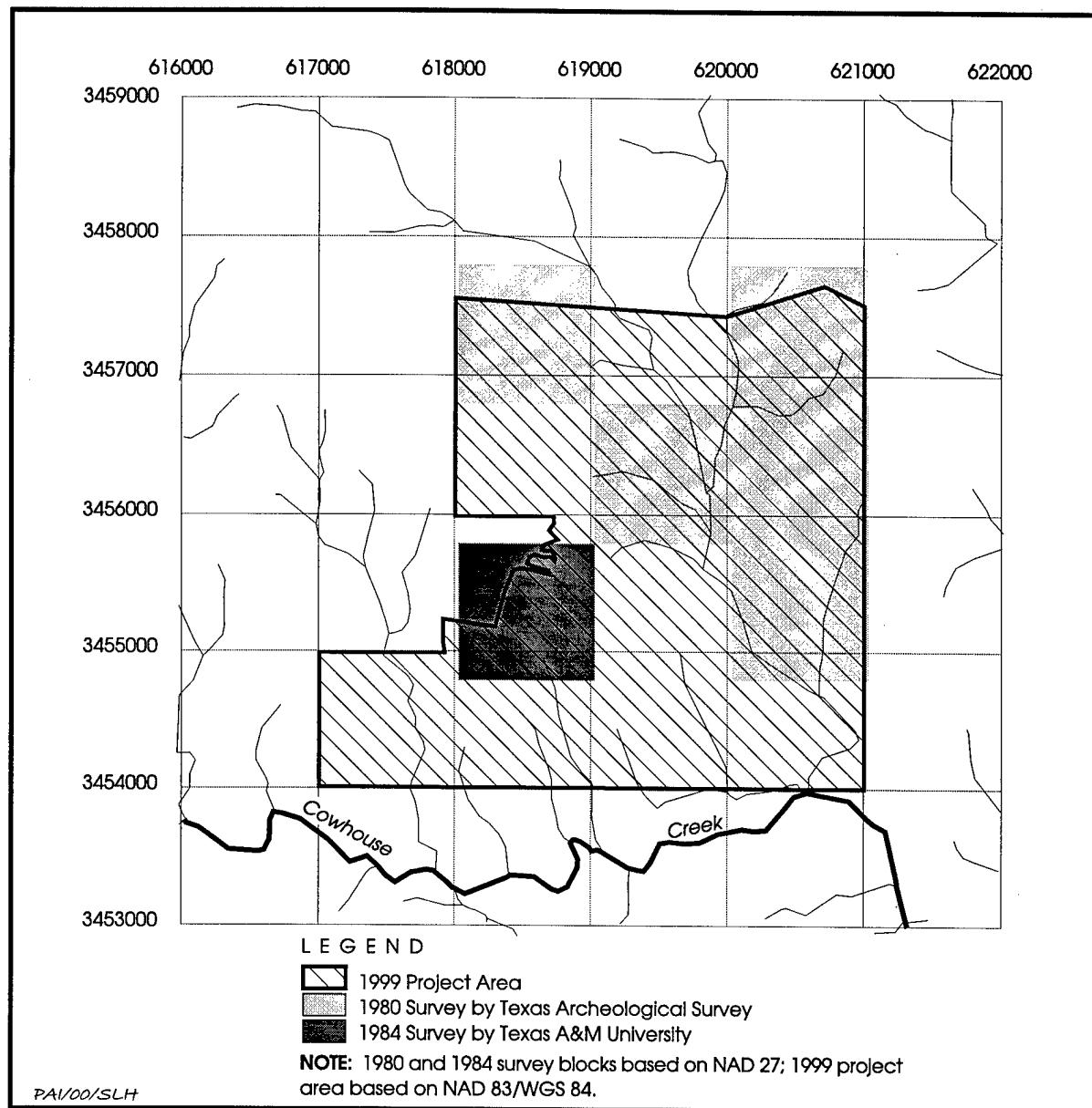
Similarly, historical contexts have been developed for Fort Hood by Freeman et al. (1999).

These contexts establish two themes important to the history of the region before acquisition by the U.S. Army—agriculture and rural development. They define National Register assessment criteria, property types, and registration requirements for historic sites. According to Freeman et al. (1999), historic sites on Fort Hood may be considered eligible for NRHP listing under Criteria A, association with important historic events; B, association with important persons; and/or D, which attributes significance to any historic property likely to yield important information relative to the history of the area.

A basic history of each tract of land containing a recorded historic archeological site has been compiled for the 1,120 historic sites on Fort Hood. Site histories for 719 sites on property acquired by the U.S. Army in 1942 and 1943 were compiled by Stabler (1999), and site histories for 401 sites on property acquired in the 1950s were compiled by Ward et al. (2000). These histories are derived from chain-of-title searches that document changes in legal ownership of a given tract of land from original patent to acquisition by the government. Ad valorem tax records were used to estimate the time of the first substantial improvements, defining when initial occupation might have occurred. Census data were used in some cases to provide additional information about the owner/occupant of selected properties. These historical records pertain to property, not specifically to archeological sites, but they provide a vital context in which to interpret physical remains.

The context for evaluating prehistoric archeological sites is presented by Ellis et al. (1994). The goal of the current survey was to identify sites and conduct a preliminary evaluation of their integrity. In cases where basic integrity is clearly lacking and the research potential is low, sites are recommended as not eligible for NRHP listing. In cases where the archeological integrity of a site is good or might be good, further investigations are required to assess its research potential. The newly recorded historic sites are assessed relative to the Fort Hood historic contexts (Freeman et al. 1999), and resulting recommendations are presented.

The remainder of this report presents survey and assessment results, including detailed descriptions of prehistoric and historic archeological sites discovered and revisited. Chapter 2



**Figure 2.** Map of previously surveyed grids within the current project area.

details project results and presents individual site descriptions. For each site, physical setting, previous investigations (if any), work performed, cultural features observed or investigated, cultural materials observed and/or collected, and assessment of research potential are described. Chapter 3 summarizes project findings and presents National Register and management recommendations for each of the 21 investigated sites.

## METHODS OF INVESTIGATION

### Field Methods

The current investigations were divided into two tasks, survey and site assessment. Task 1 consisted of pedestrian survey of the entire development area—including previously surveyed areas—where safe access was possible. Task 2 consisted of geomorphic assessment and

shovel probing or testing, when warranted, of new sites identified in Task 1 and of five previously recorded sites in the vicinity of the survey area. Because much of the survey area was known to be upland surfaces with little potential for buried archeological deposits, it was considered most efficient to complete the survey and then return to test sites with a potential for subsurface archeological deposits.

Prior to fieldwork, a files search was conducted at the Fort Hood Cultural Resources Management office to determine if known sites were located in or near the project area. Initial site recording and monitoring/revisit forms were located for all 13 previously recorded sites within the project area. Complete records were found for 4 historic farm/ranch sites, the New Graham Cemetery, 5 prehistoric lithic scatters, 1 open campsite, 2 rockshelters, and 2 farm/ranch and lithic scatter multicomponent sites (see Table 1). Previously recorded sites were plotted on large-scale aerial photographs of the project area.

In conjunction with proposed developments associated with the G3 Training Program in the Clabber Creek and Jack Mountain ranges, personnel from the Explosive Ordnance Disposal (EOD) unit of the U.S. Army conducted a survey with tightly spaced transects to locate and detonate all unexploded ordnance. With few exceptions, the archeological team was not allowed to enter or survey areas until they were cleared by EOD personnel. For safety reasons, all fieldwork was coordinated with the EOD unit on a daily basis, and EOD personnel accompanied the archeological team at all times in the field. The general policy was to not allow digging, and no systematic shovel probing or testing was done in nonsite areas. The EOD personnel did allow shovel probes and shovel tests in defined site areas, but only after determining that it would be safe.

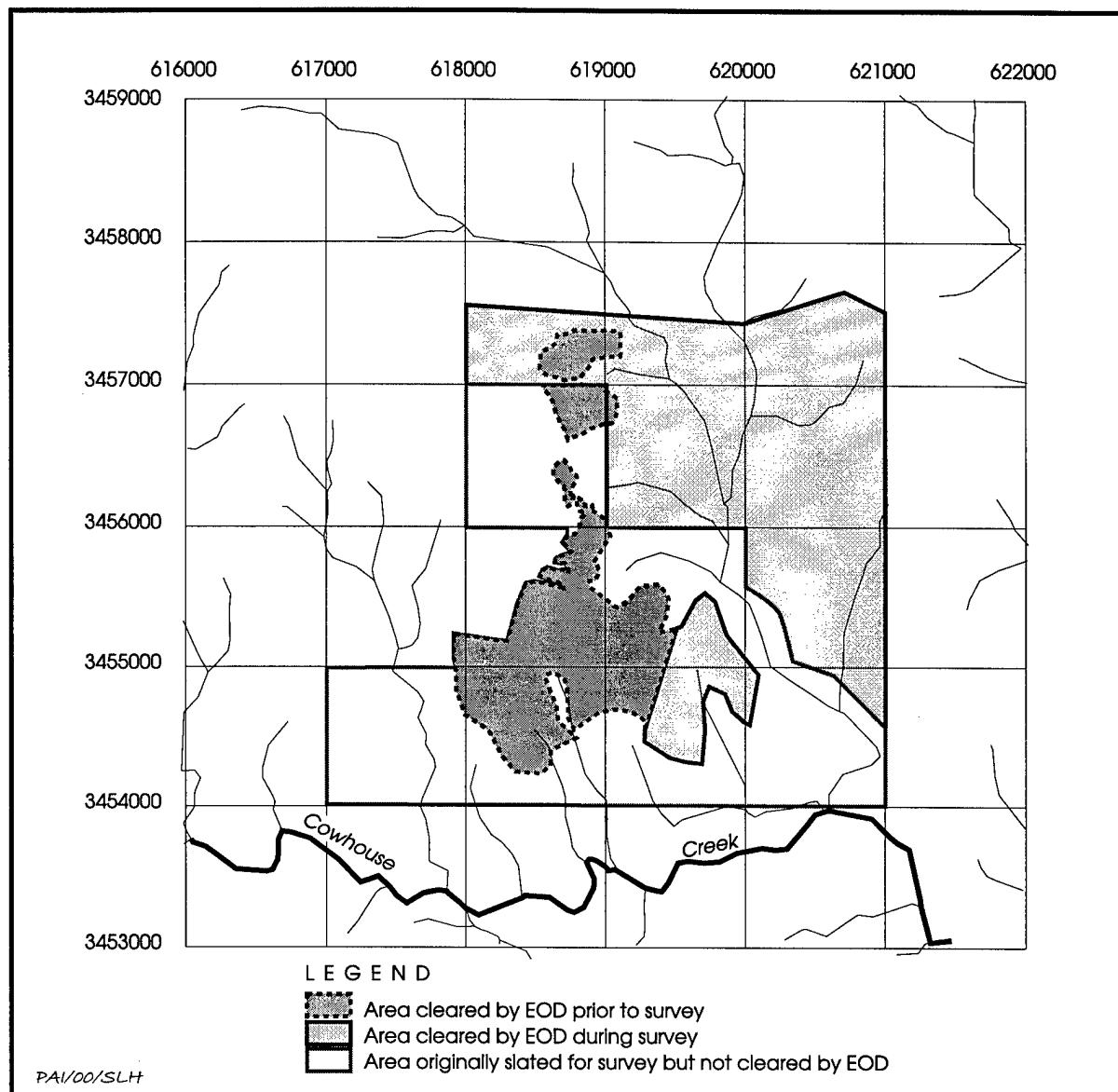
The original project plan was to survey ca. 1,890 acres, but only 1,729 acres were actually surveyed due to restricted access. In addition, the final acreage surveyed included many areas outside the originally defined project area, primarily because the range project design was not finalized before the survey began and changed throughout the course of the survey. The project area was divided into three irregular and discontinuous portions according to accessibility as classified by the EOD unit (Figure 3). Access to many drainages and areas of dense vegetation

was denied because these areas were not cleared by EOD personnel. The eastern and northern portions of the project area had not been cleared when the current project began, but it was determined that access would be permitted after these areas had been cleared. The third portion of the project area consisted of ca. 450 acres that had been cleared by EOD personnel in the spring of 1999. Much of this area had been burned due to periodic range fires caused by ordnance since the initial phase of clearing, so ground visibility was extremely good. In addition, portions of the area that had not been cleared previously because of thick vegetation were visible after the fires; in some cases, EOD technicians were able to lead the crew into these areas to slightly expand survey coverage.

It was determined that the project would proceed by first surveying areas already cleared, then returning later to additional areas as they were cleared. For various logistical reasons, there were times when EOD personnel would not allow access to the survey area; during these times, it was often possible for the crew to conduct shovel testing at the five prehistoric sites designated under Task 2.

The EOD unit completed the clearing process in two phases. First, they swept all areas scheduled for clearing. This process consisted of lines of soldiers at arms-width apart walking transects across a designated area. Live ordnance was identified and, where possible, gathered together. After sweeping was complete for the entire operation area, any live ordnance found was destroyed using explosives. This process impacted the archeological survey in two ways. First, access to areas already cleared was sometimes restricted when demolition was too close to the intended survey areas, and portions of the survey within the parcels being cleared could not be accessed until all areas scheduled for clearing had been swept and demolition was complete. Thus, much of the survey area had to be completed piecemeal, jumping from area to area as tracts were cleared.

The archeological crew met with EOD personnel on the north side of Jack Mountain every day, where the EOD escort was assigned and activities were coordinated. Once in the field, six crew members walked transects spaced 20–30 m apart. EOD technicians followed the crew, usually one for every two archeologists. As a rule, regular north-south transects were used to cover



**Figure 3.** Map of the project area showing surveyed portions.

the area; however, these transects were frequently adjusted to conform to the limits set by clearing operations and by the need to complete irregularly-shaped parcels. Each crew member was given a set of large-scale aerial photographs (1 inch = 150 m) corresponding to the PK grid they were surveying. Crew members made notes about vegetation, landforms, and other nonsite features encountered during the survey. This enabled the crew to make notes on their transects and to stop only when sites were encountered. Ground surface visibility was very

good (50–90 percent) throughout most of the project area, and sites were easily recognized because of surface manifestations.

In defining new sites, the crew followed precedents set by the most recent archeological survey conducted at Fort Hood. Prehistoric sites were defined by the presence of two or more stone tools within a 5-m radius. Historic sites were defined by either the presence of architectural features or the presence of at least three artifact classes such as glass, metal, or ceramics within a 5-m radius (Mueller-Wille and Carlson

## *Archeological Survey and Site Reassessments in the Live Fire Area*

1990a:17). Previously recorded sites were identified based on site maps and site descriptions. Whenever a site was encountered, the crew assembled and conducted a detailed search of the area. Site size and type were established from these observations. Each crew member was responsible for a particular aspect of recording the site. A State of Texas site form was completed, the site was mapped, and its location was plotted on aerial photographs. The boundaries and center of the site were recorded with a Global Positioning System (GPS) unit. The site was photographed, and any additional notes not covered in the site form were completed. Only diagnostic artifacts were collected from the surface, while all artifacts were collected from shovel tests. Shovel tests consisted of standard 30x30-cm units. All sediments from these tests were screened using ¼-inch-mesh hardware cloth. In some cases, only a shovel probe, or simple turning over of soil to determine if sufficient deposits were present, was necessary.

Shovel testing and evaluations of the five previously recorded sites (designated in Task 2) took place primarily during three days when ordnance demolition limited access to the survey area. Upon re-locating a site, the crew reexamined the surface in order to establish the recorded site boundaries and excavate shovel probes to determine if shovel testing was appropriate. Notes were made on site conditions, and modifications to the site map were made when necessary. Shovel tests were excavated when alluvial or colluvial deposits more than 15 cm deep were present in areas of less than 20 percent slope; their locations were plotted on the site map. The site was photographed, and GPS readings were taken where appropriate.

All site data was submitted to the Texas Historic Sites Atlas (Texas Historical Commission) using TexSite, the automated State of Texas Archeological Site Data Recording System, to obtain trinomial site numbers. Two previously recorded historic sites (41CV445 and 41CV952) were found in 1999 to have unrecorded prehistoric components. These components were not given new site numbers, as would have previously been the case at Fort Hood. These new finds were instead documented as components within the existing historic localities that already had assigned trinomial numbers. In contrast, one previously recorded location that was reinvestigated in 1999 has different site numbers assigned

to the prehistoric (41CV424) and historic (41CV425) components even though the former completely encompasses the latter (see Table 1).

### **Laboratory and Analysis Methods**

Laboratory methods were designed to meet the requirements of the Fort Hood Cultural Resource Management Program for laboratory processing and curation. All artifact and material collections were processed and curated according to federal curation guidelines, Council of Texas Archeologists standards, and current curation and conservation standards.

All of the collections were organized, processed, and curated by site. When artifacts were brought in from the field, they were checked against field records for problems or inconsistencies in the provenience information. Cleaning methods were selected as appropriate for each artifact type. For example, metal objects were dry-brushed, while glass objects were washed using tap water and a light brush. After cleaning, artifacts were bagged by material type and provenience.

Each group of provenienced artifacts was assigned a unique, provenience-specific accession number. A specimen inventory, organized by site and accession number, was compiled for each artifact type. The inventory includes the accession number, associated provenience data, the name of the crew member who collected the artifact, the date of collection, any other information on the field bag, and the types and quantity of artifacts recovered. Each artifact was labeled. After being labeled, the artifacts were placed in a 4-mil polyethylene ziplock bag. Archival curation tags documenting the name of the project, project number and date, site number, provenience data, accession number, artifact type, and the number of specimens were placed in 1.5-mil polyethylene bags and placed within each artifact bag. Artifacts were grouped by artifact type or subtype if appropriate.

With the exception of some field maps (drawn on non-archival grid paper) and aerial photographs (later treated with a deacidification solution), all forms and records used in the field and lab were printed on archival paper and filled out in pencil. All paper records were organized by site, then grouped by categories (e.g. journal notes, shovel test forms, specimen inventories, etc.). Photographic materials were curated as a

unit and divided into black and white photographs and color slides. All written and photographic records were placed in archival folders, archival record boxes, and curation boxes. Each curation box contains a detailed inventory of its contents.

The analysis of artifacts recovered consisted of description and identification. Most artifacts

were collected as diagnostic surface finds, making inter- or intrasite analysis at this stage of investigation problematic. Because the assemblages were small and represented a variety of contexts, detailed attribute analyses of individual artifacts or comprehensive comparative analyses of similar artifacts were not warranted.

# RESULTS OF SURVEY AND SITE ASSESSMENTS

## 2

The 1,729-acre survey area is characterized by gently to moderately sloping Walnut Clay limestones with a thin veneer of stony soils. Even in the surveyed areas along Brown's Creek, no appreciable accumulations of alluvial sediment were observed. The archeological survey resulted in the documentation of 8 new sites and revisit/reassessment of 13 previously recorded sites (Table 2). Of the 8 new sites, 5 are prehistoric and 3 are historic. The 13 previously recorded sites include 6 prehistoric, 5 historic, and 2 multi-component sites. Shovel probes were excavated at the 5 sites slated for geomorphic assessment; of these, 41CV423 was located in the survey area and the other 4 sites were located nearby. Based on geomorphic assessment and shovel probing results, additional work was limited to excavation of 18 shovel tests at 41CV719. No shovel testing was warranted at the other four sites slated for geomorphic assessment, or at any other sites in the survey area, due to lack of deposits.

Sixty artifacts were collected during the project (Table 3). Four unmodified flakes were recovered from a single shovel test at 41CV719; all other specimens were collected from the surface. Twelve diagnostic projectile points were recovered. Collected dart points consisted of 1 each of Carrollton (41CV424), Castroville (41CV424), Gower (41CV719), and Meserve (41CV719), along with 4 untypeable points (3 from 41CV424 and 1 from 41CV445). Collected arrow points consisted of a Scallorn (41CV1628), a Talco (41CV719), and 2 untypeable points (both from 41CV424). Selected points are illustrated in Figure 4.

### ISOLATED FINDS

Five isolated finds were recorded. Two isolated dart points—a Wells point from PK grid E18/N56

and an untypeable point from PK grid E19/N56—were collected. The three not collected consisted of an untyped dart point (E20/N57), an untyped dart point base (E19/N56), and historic glass fragments (E18/N55).

### SITE DESCRIPTIONS

#### 41CV421

##### *Site Setting*

Site 41CV421 is a historic farm/ranch located in training area 82. It is plotted on the Post Oak Mountain 7.5-minute topographic quadrangle at UTM zone 14 and located on aerial photo sheet 40. The site is located on an upland slope, 120 m east of Brown's Creek and near three small stands of oak trees. Vegetation includes grasses, mesquite, and cacti. The entire site area had burned just prior to the 1999 survey.

##### *Previous Work*

On 1 September 1980, Seelinger (Texas Archeological Survey) recorded the site and established its dimensions as 160x130 m. The foundation of a structure with an adjacent cistern, root cellar, and several segments of stone wall were identified. Artifacts observed in association with these structural remains included wood, glass, a stove leg, and wire. In addition to these artifacts, a 1940 Texas license plate was observed. The site condition was described as poor. Ordnance, vehicle activities, and erosion had impacted approximately 50 percent of its surface.

On 20 February 1988, Pry and Lascardi (Texas A&M University) monitored the site. On

*Archeological Survey and Site Reassessments in the Live Fire Area*

**Table 2. Summary of work accomplished**

Site	Historic Component	Prehistoric Component	Location	Work Completed
41CV421	farm/ranch	–	upland slope east of Brown's Creek	rerecord site data
41CV423	–	lithic scatter	upland slope near unnamed tributary	rerecord site data; assess potential for buried deposits
41CV424	–	lithic scatter	upland slope at tributary confluence with Brown's Creek	rerecord site data
41CV425	farm/ranch	–	upland slope at tributary confluence with Brown's Creek	rerecord site data
41CV445	farm/ranch	lithic scatter	upland knoll	rerecord historic site data; initial recording of prehistoric component
41CV450	farm/ranch	–	upland escarpment	rerecord site data
41CV466	farm/ranch	–	upland slope	rerecord site data
41CV583	–	rockshelter	bluff edge below rim of Jack Mountain	rerecord site data; excavate shovel probes, assess potential for buried deposits
41CV712	–	open campsite	upland escarpment near Hargrove Creek	rerecord site data; excavate shovel probes, assess potential for buried deposits
41CV719	–	lithic scatter	Round Mountain, isolated upland knoll and slope	rerecord site data and divide site into 3 subareas; excavate shovel probes and 18 shovel tests and assess potential for buried deposits in Subarea C
41CV791	–	rockshelter	bluff edge below rim of Jack Mountain	rerecord site data; assess potential for buried deposits
41CV952	farm/ranch	lithic scatter	upland knoll between two tributaries	rerecord site data
41CV1475	cemetery	–	upland knoll	rerecord site data
41CV1621	farm/ranch	–	upland slope	initial site recording
41CV1622	farm/ranch	–	upland knoll near tributary	initial site recording
41CV1623	farm/ranch	–	upland slope	initial site recording
41CV1625	–	lithic scatter	upland slope	initial site recording
41CV1626	–	lithic scatter	upland slope	initial site recording
41CV1627	–	lithic scatter	upland slope near Brown's Creek	initial site recording
41CV1628	–	lithic scatter	steep upland slope near Brown's Creek	initial site recording
41CV1629	–	lithic scatter	upland knoll near Brown's Creek	initial site recording

**Table 3. Summary of artifacts collected**

Site	Prehistoric Artifacts				Historic Artifacts				Totals
	Dart Points	Arrow Points	Biface	Unmodified Flakes	Glass	Ceramics	Coin	Metal Artifacts	
41CV421	1	—	—	—	2	3	—	1	6
41CV424	5	2	1	—	—	—	—	—	7
41CV425	1	—	1	—	1	1	—	—	2
41CV445	1	—	—	—	—	—	—	—	1
41CV450	—	—	—	—	—	—	1	1	1
41CV466	—	—	—	—	15	5	—	5	25
41CV719	2	1	—	4*	—	—	—	—	7
41CV1621	—	—	—	—	2	—	—	—	2
41CV1622	—	—	—	—	—	6	—	—	6
41CV1623	—	—	—	—	—	—	1	—	1
41CV1628	—	1	1	—	—	—	—	—	2
Totals	8	4	1	4	20	15	1	7	60

\* Unmodified flakes collected from a shovel test; all other artifacts were surface collected.

the basis of field observations, the site boundary was extended to 450x265 m. A 1935 Texas license plate and a variety of ceramics and glass were collected. The site condition was described as fair, with ordnance, vehicle activities, and erosion impacting 50 percent of the surface.

According to Stabler (1999:188–189), the 25-acre Jesse Graham Jr. preemption survey on which 41CV421 is located was not occupied by the Graham family between the time of its patent in 1876 and 1902 (he resided on his adjacent, 160-acre survey). It is unclear if heir William S. Graham occupied the property between 1902 and 1909, but he did make improvements, and the land's assessed value increased during his ownership. Between 1909 and 1919, the N. C. and Cora Hopson family apparently resided on the property, which they improved with the addition of a house and barn. From 1920 to 1929, subsequent owners Noah Lee Hopson and W.A. Fuller owned several improved properties, but the locations of their respective homesteads remain unclear. The final owner, W. I. Bay, lived elsewhere from 1930 until the property was acquired by the government in 1942.

The site file and history were reviewed in 1999 relative to the Fort Hood context for the

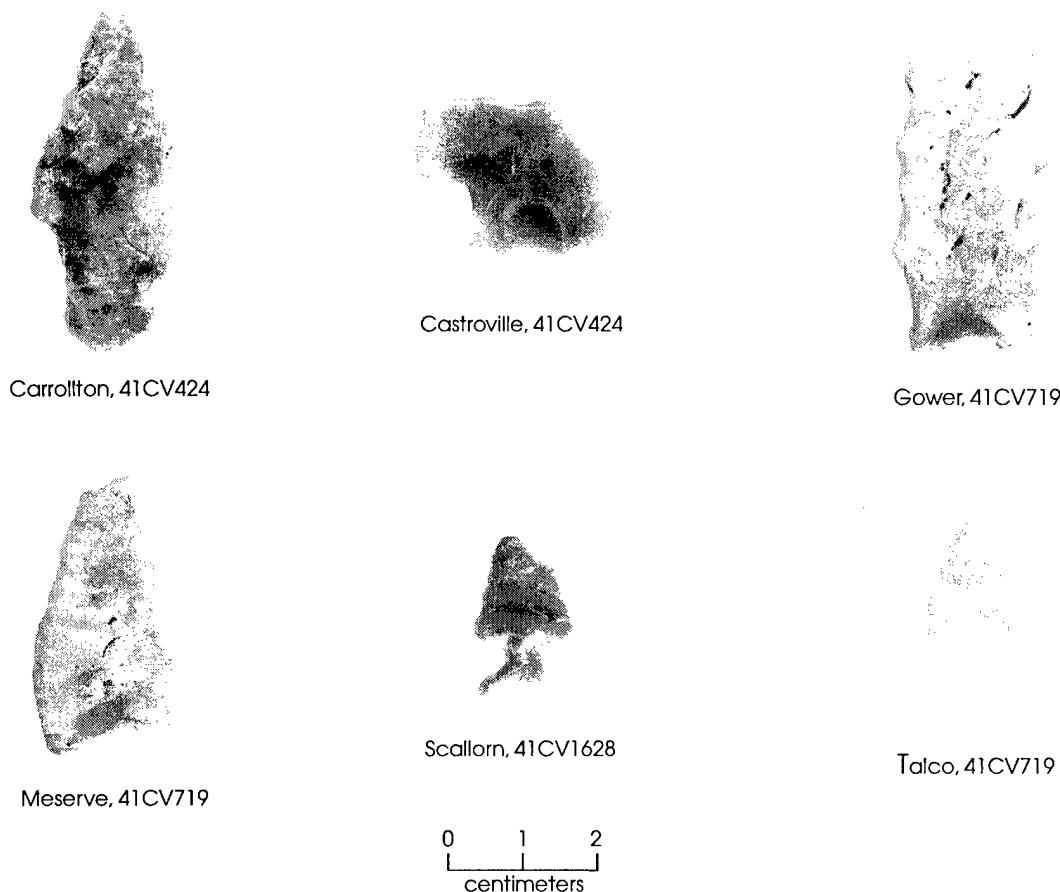
purpose of making a National Register recommendation. Based on this information, the site's archeological integrity was assessed as moderate (Blake 2001:Appendix A); it was recommended as potentially eligible for NRHP listing under Criterion D as a domestic property relative to the agriculture context developed for Fort Hood (Freeman et al. 1999:259).

### **Work Performed**

On 25 October 1999, a survey crew reassessed the site and produced a new site map (Figure 5). Site dimensions were modified to 200x100 m (20,000 m<sup>2</sup>). A photographic record was made of the current site conditions. Based on the combination of a low potential for subsurface archeological deposits due to lack of sediment and safety considerations related to live ordnance, no shovel tests were excavated.

### **Cultural Features**

Five surface features are the most visible aspects of this site. These consist of the stone footprint of three structures, a cistern, and a substantially intact subsurface structure (a root



**Figure 4.** Selected projectile points collected.

or storm cellar). Four are concentrated in the west central part of the site within the densest artifact concentrations. The fifth (and most insubstantial) feature is isolated from the others on the northern site margin.

Feature 1 is a cut limestone foundation measuring 15x15 m and oriented roughly east-west. Remnants of an 8-m-long, 1-m-wide stone path extend west from the foundation. Artifacts are concentrated in this area as well. On the eastern edge of the feature, a square grouping of stones measuring approximately 1x1 m and the presence of dressed masonry and bricks may represent a chimney foundation. Based on the shape of the feature, the associated ceramics, and the proximity of the cistern (Feature 3), Feature 1 probably represents a dwelling.

Feature 2 is located south of Feature 1 and east of Feature 4. It represents the remains of a subsurface structure, probably a root cellar. The main structure consists of walls constructed of

dressed limestone and mortar masonry forming a rectangle measuring 2x3.5 m. Along the east edge, an entry (1x2 m) with dressed limestone steps leads down into the main structure. The overall depth is about 2 m. Displaced limestone blocks cover the bottom of the cellar, indicating at least one masonry course above present ground level. No evidence of a roof survives.

Feature 3 is a limestone-lined cistern situated just outside and at the midpoint of the north wall of Feature 1. The bell-shaped cistern is finished with mortar and measures 1 m in diameter at the opening and approximately 2 m in diameter at the bottom. It is approximately 3 m deep.

Feature 4 is a wall of dry masonry construction located ca. 25 m southwest of Feature 1. The limestone rocks forming the wall are small, undressed tabular rocks, presumably collected from the surrounding fields. The feature consists of three sides of an irregular enclosure that is

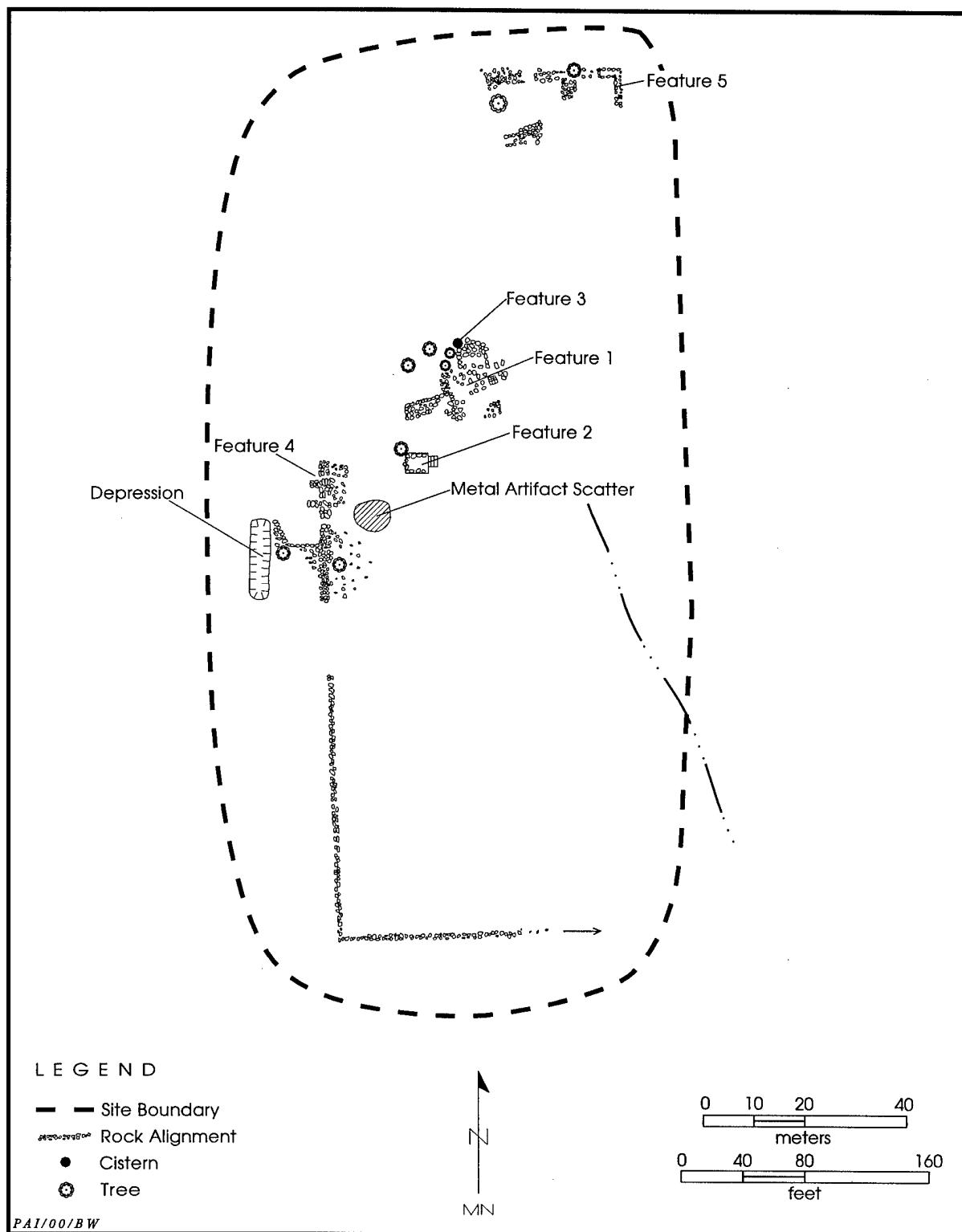


Figure 5. Site map of 41CV421.

## *Archeological Survey and Site Reassessments in the Live Fire Area*

open on the north. Glass and tin fragments, as well as two Texas license plates, were concentrated around this U-shaped enclosure. This structure probably represents an outbuilding. Beginning 15 m south of Feature 4, a stone wall extends southward along the same line as Feature 4 for 65 m, where it meets an east-west stone wall that continues past the eastern edge of the site.

Feature 5 is an ephemeral limestone structure foundation 40 m northeast of Feature 3. The vague outline of a rectangle is visible. This feature may represent a small pen or possibly another outbuilding.

### **Cultural Materials**

Artifacts observed and/or collected from this site included a variety of glass, metal, and ceramic fragments representing a typical late nineteenth and early twentieth century domestic assemblage of easily accessible consumer goods. Table 4 presents artifacts that were collected.

Ceramic sherds observed included white-ware, Bristol-glazed stoneware, yellowware, decorated and undecorated porcelain, and an unidentified ceramic type with a dark brown paste. The stoneware was distributed across most of the site, while the other ceramic types

were concentrated in and around Feature 1 (see Cultural Features).

Sherd of blue, purple, green, brown, and clear bottle glass were present at 41CV421. Sherds of solarized pressed glass with geometric designs were also observed. Glass artifacts were generally scattered across the site, with a slight concentration in and around Feature 1.

A variety of metal objects were scattered across the site, including decorative fragments from a cast iron stove, a blue enameled metal bucket, tin can fragments, gears and other machine parts, barbed wire, two Texas license plate fragments (one dated 1925, the other illegible), and a horseshoe. Among the tin can fragments were a "Maxwell House" coffee can lid and metal "Jello" can. The tin can fragments were concentrated in an area just east of Feature 4, while another concentration of metal artifacts was observed east of Feature 1.

### **Discussion and Assessments**

Site 41CV421 contains features and artifacts normally associated with a farm/ranch complex, with the small stone wall enclosures likely representing animal pens. The raising of livestock was probably an important activity on this site. This accords well with the historic context of this

**Table 4. Summary of artifacts collected from 41CV421**

Number of Specimens	Identification	Date	Reference
<b>CERAMICS</b>			
1	Whiteware plate rimsherd with repoussé-molded edge decoration and green accent	late 19th to early 20th century	Jasper 1996:176
1	Yellowware lid fragment with molded decoration	late 19th century	Sussman 1997:77–79
1	Bristol- and blue-glazed stoneware bowl rimsherd with molded decoration	early 20th century	McNerney 1981:13
<b>GLASS</b>			
1	Solarized glass canning jar base	ca. 1903–1909	Toulouse 1969:167
1	Solarized table glass sherd with press-molded decoration	late 19th to early 20th century	Jenks and Luna 1990
<b>METAL</b>			
1	License plate fragment	1925	–

area, which indicates that ranching was a primary economic occupation around the turn of the century.

Like most historic sites on Fort Hood, the area appears to have been razed. Only the rock foundations, which represent below-ground portions of buildings, and artifact scatters remain. Subsequent damage from vehicle traffic and ordnance impacts is also evident. The site was recently burned, and this may exacerbate the impacts of erosion. Despite this damage, the physical configurations and associated spatial layout of the site are observable in the extant remains. The site's overall archeological integrity is moderate. Therefore, 41CV421 is recommended as potentially eligible under Criterion D as a domestic property relative to the agriculture context developed for Fort Hood (Freeman et al. 1999).

#### **41CV423**

##### ***Site Setting***

Site 41CV423 is a prehistoric lithic scatter located along the edge of an east-flowing tributary to Brown's Creek in training area 82. The site is plotted on the Post Oak Mountain 7.5-minute topographic quadrangle at UTM zone 14 and located on aerial photo sheet 40. It is located on an intermediate upland slope, with bedrock exposed across 30 percent of the site. Grasses dominate the northern portion of the site, while the southern portion along the tributary has a moderate cover of juniper. Runnels and other evidence of general sheet erosion are prevalent. Site elevation is approximately 250 m above mean sea level. During the 1999 visit, it was apparent that open portions of the site had burned recently.

##### ***Previous Work***

Seelinger (Texas Archeological Survey) initially recorded this site on 15 March 1980. Site dimensions were established as 42x40 m, and a sparse scatter of lithicdebitage and one core were observed. In addition to prehistoricdebitage, incidental chert fragments broken by tracked vehicles were noted. Vehicle traffic and erosion had impacted an estimated 60 percent of the site.

On 20 February 1988, Pry and Luscardi

(Texas A&M University) monitored the site. The site boundaries were confirmed, and the condition was unchanged.

##### ***Work Performed***

On 27 October 1999, a survey crew reassessed the site. Though the old site map was found to be accurate, the site boundaries were extended northward to include lithic artifacts observed further upslope. Site dimensions were changed to 600x200 m (120,000 m<sup>2</sup>), and a photographic record was made of the current site conditions. Based on the combination of a low potential for subsurface archeological deposits and safety considerations related to live ordnance, no shovel tests were excavated at this site.

##### ***Cultural Materials***

Cultural materials consisted primarily of an extremely diffuse scatter of lithicdebitage. Additionally, cores, bifaces, and retouched flakes were observed. No cultural materials were collected.

##### ***Discussion and Assessments***

Though enough cultural materials are present for 41CV423 to be discernable, its boundaries are extremely vague. There were no concentrations of artifacts on which to orient the site, but the continuation of thinly scattereddebitage upslope from the original site necessitated extension of the site boundary. In addition to lithicdebitage, flakes produced from chertcobbles broken by tracked vehicles were also observed. This site is located on an upland slope that has negligible potential to contain buried archeological deposits. In addition, erosion and tracked vehicles have caused a high degree of disturbance. Though cultural materials are present, the site exhibits extremely poorintegrity and low research potential.

#### **41CV424**

##### ***Site Setting***

Site 41CV424 is a prehistoric lithic scatter located on an upland slope at the confluence of Brown's Creek and a southeast flowing tributary in training area 94. The site is plotted on the

## *Archeological Survey and Site Reassessments in the Live Fire Area*

Post Oak Mountain 7.5-minute topographic quadrangle at UTM zone 14 and located on aerial photo sheet 40. Ground cover is primarily a moderate oak and juniper woodland with a dense understory. Sporadically, the vegetation opens to small areas of open grassland. A historic occupation (see 41CV425) overlays the northern third of the site. Site elevation is 219 m above mean sea level.

### **Previous Work**

On 14 March 1980, Thomas (Texas Archeological Survey) recorded the site as a “light to moderate scatter of flakes and bifaces.” One dart point (not identified) was collected. Soil deposition was described as silty clay with a depth of less than 10 cm. Erosion was the primary observed impact, damaging an estimated 50 percent of the site. Other impacts—including historic activities, cattle grazing, and ordnance—affected an additional 40 percent of the site.

On 20 February 1988, Pry and Lusardi (Texas A&M University) monitored the site. The site boundaries were established as 650x165 m. Two dart points (not identified) were collected, and a site map was produced. The monitors judged that 65 percent of the site had been impacted, primarily by ordnance (50 percent). In contrast to the earlier observations, they estimated that erosion had impacted only 5 percent of the site.

### **Work Performed**

On 27 September 1999, a survey crew reassessed the site. The 1988 site map was revised to adjust the site boundaries and more accurately

plot roads and other features. The maximum redefined site dimensions are 740x190 m (140,600 m<sup>2</sup>). The site boundary was recorded using GPS, and a photographic record was made of the current site conditions. Based on the combination of a low potential for subsurface archeological deposits and safety considerations related to live ordnance, no shovel tests were excavated.

### **Cultural Materials**

Two biface fragments and more than 75 unmodified flakes were observed on the surface. Additionally, 7 projectile points were collected (see Figure 4). Table 5 presents the point types and their chronology. The assemblage contains Middle Archaic through Late Prehistoric types. This variation indicates that artifacts at 41CV424 represent more than one cultural context and that occupations may have occurred over a long period of time.

### **Discussion and Assessments**

The surface of 41CV424 is flat and covered in vegetation, so that erosion across the site is limited. Moderate vehicle traffic has caused damage to only ca. 10 percent of the site, and historic occupation related to site 41CV425 has caused an unknown amount of damage to the prehistoric components on the north end of the site. Although external impacts are limited, the cultural materials observed on this site are in an unsealed context and the archeological integrity is poor. The upland slope on which the site is located has negligible potential to contain buried archeological deposits; therefore, 41CV424 has low research potential.

**Table 5. Summary of projectile points collected from 41CV424**

Point Type	Chronology	Comments
Carrollton	Middle Archaic	edge ground and reworked
Castroville	Late Archaic	—
untyped dart point	probable Late Archaic	proximal fragment with a rectangular stem; probable Bulverde
untypeable dart point	probable Middle to Late Archaic	distal fragment; probable Bulverde or Andice
untypeable dart point	Archaic	medial fragment; side notched and reworked
untypeable arrow point	Late Prehistoric	medial fragment
untypeable arrow point	Late Prehistoric	distal fragment

## **41CV425**

### ***Site Setting***

Site 41CV425 is a historic farm/ranch located on an upland slope at the confluence of Brown's Creek and a southeast flowing tributary in training area 94. The site is plotted on the Post Oak Mountain 7.5-minute topographic quadrangle at UTM zone 14 and located on aerial photo sheet 40. Ground cover is primarily a moderate oak and juniper woodland with a dense understory and small interspersed areas of open grassland. A prehistoric occupation (41CV424) underlies 41CV425 and continues south beyond the site boundary. Site elevation is 219 m above mean sea level.

### ***Previous Work***

On 15 March 1980, Seelinger (Texas Archeological Survey) initially recorded this site. Features included rock walls, a corral, a house foundation, and two unidentified structures. Various ceramic, metal, and glass artifacts were observed and described as "pre-1900" in age. The site condition was reported as fair, with an estimated 15 percent of the surface impacted by ordnance and vehicle traffic.

On 20 February 1988, Pry and Luscardi (Texas A&M University) monitored the site. The condition of the corral was reported as fair, but the overall site was in poor condition. An estimated 63 percent of the surface area was impacted, with ordnance impacts as the most significant cause of disturbance (55 percent).

According to Stabler (1999:190–191), the Jesse Graham Jr. family lived on his 160-acre preemption survey from 1868 until 1889. From 1889 to 1892, William H. Spurlin lived on the 140 acres of the Graham Survey on which 41CV425 is located. From 1892 to 1902, the Alfred L. Hopson family lived elsewhere, and the residence status of William S. Graham from 1903 to 1909 remains unclear. Property owners N. C. and Cora Hopson apparently resided elsewhere between 1909 and 1919. From 1920 to 1929, subsequent owners Noah Lee Hopson and W. A. Fuller owned several improved properties, but the locations of their respective homesteads remain unclear. Final owner W. I. Bay lived elsewhere from 1930 until the property on which 41CV425 is located was acquired by the government in 1942.

The site file and history were reviewed in 1999 for the purpose of making a NRHP recommendation for 41CV425. Based on this information, the site's archeological integrity was assessed as low (Blake 2001:Appendix A). However, it was recommended as eligible for NRHP listing under Criteria A and B because of its association with important early settlers, Jesse and Cornelia Graham Jr., in the period from 1868 to 1889 (Freeman et al. 1999:Appendix E).

### ***Work Performed***

On 27 September 1999, a survey crew reassessed the site. Because site conditions had changed, a new site map was produced (Figure 6). Additionally, the site boundary was extended south to include a small scatter of historic artifacts; redefined site dimensions are 100x60 m (6,000 m<sup>2</sup>). The site boundary was recorded using GPS, and a photographic record was made of the current site conditions. Based on the combination of a low potential for subsurface archeological deposits due to lack of sediments and safety considerations related to live ordnance, no shovel tests were excavated at this site.

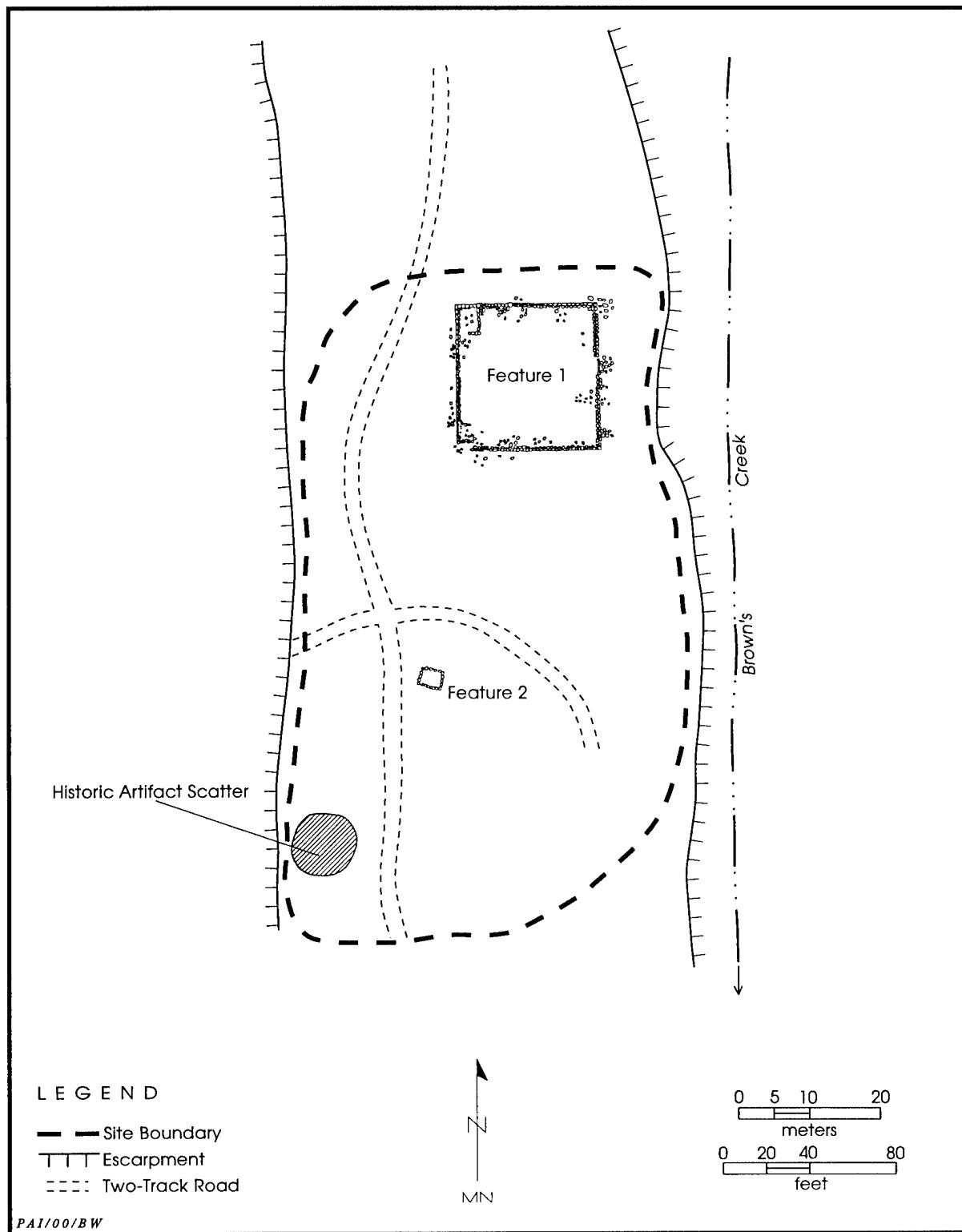
### ***Cultural Features***

Feature 1 is a large, well-preserved, 20x20-m stacked limestone corral. Though trees have encroached on the feature and have severely impacted parts of it, portions of the stone wall still stand as high as 1 m. There is a small rectangular subdivision (4x3 m) within the northwest corner of Feature 1, suggesting that livestock could have been isolated in this extra pen.

Feature 2 is composed of one or two courses of stone that form a rectangle approximately 3x2 m. This feature has been severely impacted by bioturbation, and several trees grow in and around it. Therefore, it is not possible to ascertain the nature and actual size of this feature.

### ***Cultural Materials***

Cultural materials observed included glass (opaque, white, cobalt blue, solarized, and aqua sherds), whiteware ceramic sherds, cut nails, and tin fragments. A whiteware sherd with an unidentified (ca. 1930s–1940s) Royal Arms-style



**Figure 6.** Site map of 41CV425.

maker's mark (Kovel and Kovel 1986) and a milk glass lid fragment from a commercial toiletry product (ca. 1930s) were collected.

### ***Discussion and Assessments***

This site contains a single intact livestock feature most likely related to ranching activities. Little evidence of habitation is present. The chronological indicators at 41CV425 are sparse, though the two collected artifacts indicate activity as late as the 1930s. Site 41CV425 contains insufficient spatial information and sparse artifacts, and there is little potential that the site could provide important information about history from its archeological deposits. The archeological integrity of this site is low. However, because of its historic associations with important early settlers, Jesse and Cornelia Graham Jr., the archival research potential is high. Therefore, 41CV425 is recommended as eligible under Criteria A and B as a domestic property relative to the rural development context developed for Fort Hood (Freeman et al. 1999).

### **41CV445**

#### ***Site Setting***

Site 41CV445 is a multicomponent prehistoric and historic site located on and around an upland knoll north of the east end of Jack Mountain in training area 82. The site is plotted on the Fort Hood 7.5-minute topographic quadrangle at UTM zone 14 and located on aerial photo sheet 40. It is situated adjacent to the south side of a group of artillery targets and well-used military trails. On site vegetation includes sparse groups of juniper, but the majority of the site is denuded. Site elevation is approximately 250 m above mean sea level.

#### ***Previous Work***

On 8 March 1980, Laity (Texas Archeological Survey) recorded the historic component of this site, which included two structures and the remnant of a chimney. Site dimensions were established as 228x146 m. Structural wood, ceramics, glass, and metal were observed, but no collections were made. The site condition was described as good, with erosion and ordnance

impacting only 10 percent of the site.

On 20 February 1988, Dureka and Callum (Texas A&M University) monitored the site. They increased the site boundary to 350x200 m and adjusted the plotting of the site on the IGAS map. In their opinion, the site had deteriorated since the last visit. Fewer artifacts were observed, and the architectural features were less well preserved. They estimated 50 percent of the site surface was affected, and that site condition was fair. They also noted that the features had sustained heavy tracked vehicle damage and bulldozing.

A history for the property on which site 41CV445 is located was compiled by Stabler (1999:202–203). J. J. Wagner may have lived on the property from 1875 to 1876, but subsequently abandoned it. William H. Spurlin later claimed it as his 160-acre preemption survey, where his family lived from 1879 to 1888. From 1889 to 1892, it is possible that more than one family was in occupation on the property. The final owner, Phelps T. Brookshire, lived on the property from ca. 1893 until it was acquired by the government in 1942.

In 1999, the site file and site history were reviewed for the purpose of making a NRHP recommendation. Based on the findings, the site's archeological integrity was assessed as low (Blake 2001:Appendix A), and it was recommended as not eligible for NRHP listing (Freeman et al. 1999:260).

#### ***Work Performed***

On 27 September 1999, a survey crew reassessed the site. The historic component was re-located and observed to be in extremely poor condition. An adjacent, previously unrecorded prehistoric component was also observed; on this basis, the site boundaries were extended to the south and east. The redefined site dimensions are 320x220 m (70,400 m<sup>2</sup>). Based on the combination of a low potential for subsurface archeological deposits and safety considerations related to live ordnance, no shovel tests were excavated.

#### ***Cultural Materials***

Only sparse cultural materials were associated with the historic component. Military activities and heavy erosion have left only the remnants of structural foundations dug into the

southern edge of the knoll. Metal and glass fragments were observed in the immediate vicinity of these structural remains, but no historic artifacts were collected.

A diffuse scatter of lithic debitage, tools, and cores comprised the prehistoric component. The surface was highly eroded, and artifacts had accumulated where sparse junipers slowed water movement. This was particularly evident in a series of shallow washes to the south and east of the knoll around which the site was centered. The one dart point collected exhibits a burin blow on the base and substantial reworking. Though no edge grinding is apparent, the specimen conforms closely in form to a Gower dart point type. Though a single point in an unsealed context is not conclusive, it does suggest the presence of an early archaic context for some of the cultural materials present.

### ***Discussion and Assessments***

The historic component of 41CV445 is in extremely poor condition. Nearby military activities and heavy erosion have destroyed 90 percent of the surface area. This component had previously been recommended as not eligible for NRHP listing, and the lack of archeological integrity observed in 1999 confirms this recommendation.

The prehistoric component of the site consists of surface artifacts in a secondary context. Located on a landform that predates human occupation, this site has negligible potential to contain buried archeological components in primary context.

Thus, both components at site 41CV445 are considered to have extremely poor research potentials. They have low integrity, and are recommended as not eligible for listing in the NRHP.

## **41CV450**

### ***Site Setting***

Site 41CV450 is a large farm/ranch complex with several surface features preserved. It is located on an upland escarpment ca. 300 m northwest of Brown's Creek and an unnamed two-track road in training area 94. The site is plotted on the Post Oak Mountain 7.5-minute topographic quadrangle at UTM zone 14 and located on aerial photo sheet 41. Grasses are the

primary vegetation, accompanied by scattered stands of young oak and cacti. Site elevation is approximately 240 m above mean sea level.

### ***Previous Work***

On 15 March 1980, DeBremaecker (Texas Archeological Survey) recorded the site and established site boundaries as 100x65 m. The site was described as a dwelling with associated outbuildings, stock tanks, water tanks, a windmill, and root cellar. The artifact density was low, but included ceramics, glass, and metal objects. The site condition was described as good, with ordnance and erosion affecting 10–15 percent of the surface.

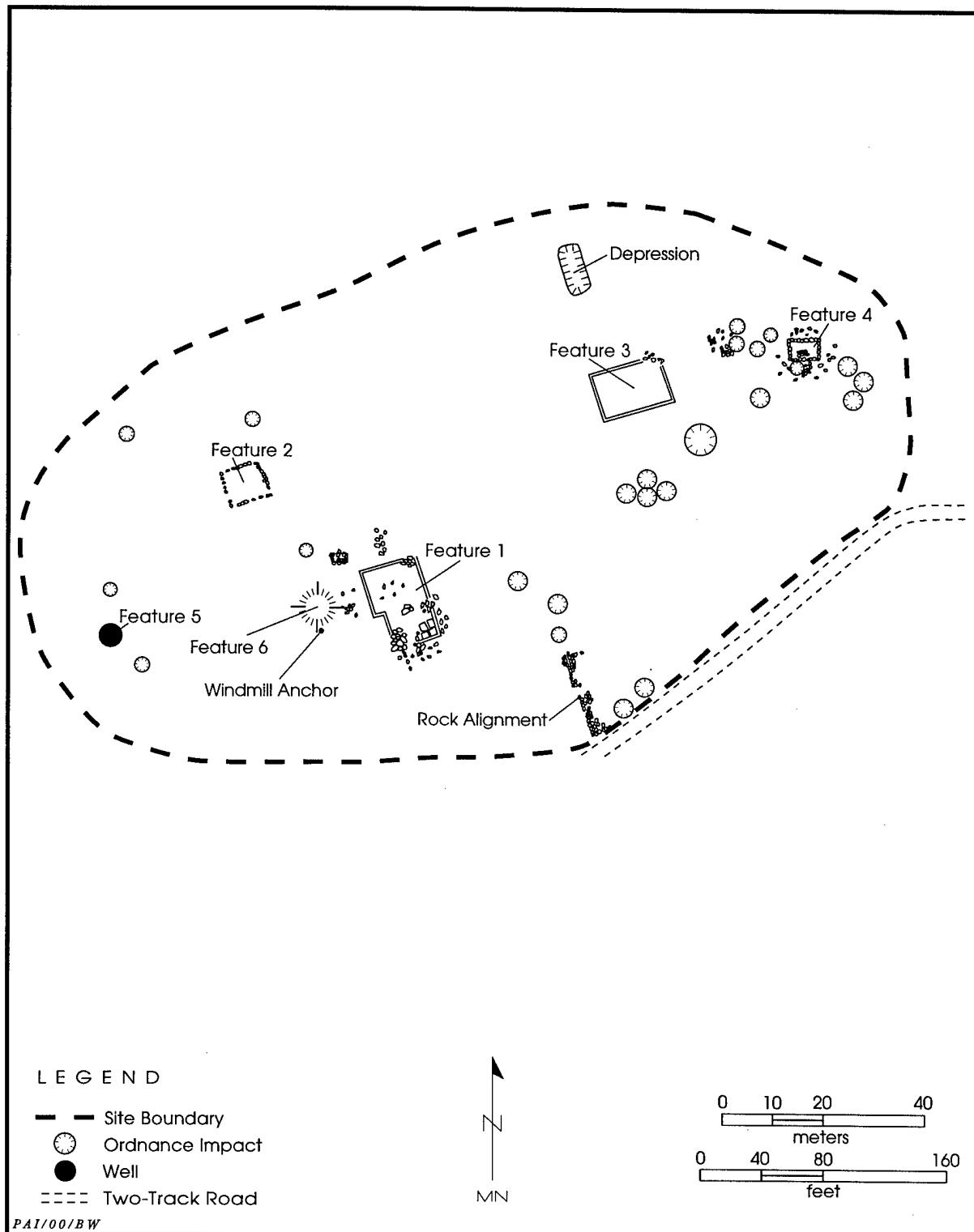
On 31 December 1987, Turpin and Bradle (Texas A&M University) monitored the site. The site dimensions were enlarged to 160x80 m. The estimated impacts from ordnance and scraping were 20 percent. No other observations were made.

According to the site history compiled by Stabler (1999:206), the status of occupation for 41CV450 is unclear between 1843 and 1855. Andrew Wolf lived somewhere on the land between 1855 and 1879, but from 1879 to 1894, the status of occupation again remains unclear. The Jesse Graham family lived on the property from 1894 until ca. 1917, at which time a house and a barn were present. The final residents on the property were the Hubbards, from 1918 to 1942.

In 1999, the site file and site history were reviewed for the purpose of making a NRHP recommendation for 41CV450. Based on the findings, the site's archeological integrity was assessed as moderate (Blake 2001:Appendix A), and it was recommended as potentially eligible for NRHP listing under Criterion D in relation to the agricultural context developed for Fort Hood (Freeman et al. 1999:260).

### ***Work Performed***

On 26 October 1999, a survey crew reassessed the site, redefined the site boundary as 180x100 m (18,000 m<sup>2</sup>), and produced a new site map (Figure 7). The site boundary was recorded using GPS, and a photographic record was made of the current site conditions. Based on the combination of a low potential for subsurface archeological deposits due to lack of sediments and



**Figure 7.** Site map of 41CV450.

safety considerations related to live ordnance, no shovel tests were excavated.

### ***Cultural Features***

Six features define this site; four are foundations, one is probably a root cellar, and one is a well. Feature 1 is a foundation made of concrete, stone, and brick. It consists of two adjacent sections with the long axis of the whole structure oriented slightly to the northwest. The southern section is a raised concrete slab foundation that is badly broken and damaged. This section has maximum dimensions of 7.6x8 m. Portions of the interior concrete slab that are still intact exhibit a tile-like grid pattern. A concrete footing marks the perimeter of the foundation. To the north, the remains of the larger section measure 10x10 m and are level with the ground surface. It, too, is delineated by a concrete foundation sill. However, no evidence of a poured slab on the interior of this section was observed. Based on its irregular shape and partitioning, Feature 1 probably represents a domestic structure built in two or more phases.

Feature 2 is an almost square foundation 8x7 m in size. The foundation sill is constructed of limestone and concrete with 0.5 ft-thick walls. With the exception of an extremely sparse scatter of broken glass to the north, artifacts are noticeably absent from the vicinity of Feature 2. This probably represents an outbuilding.

Feature 3 consists of a rectangular concrete slab, 15x10 m on a north-south axis. Few artifacts were observed with this structure. Feature 3 probably represents remnants of an outbuilding.

Feature 4 is a subsurface root cellar measuring 10x5 m on an east-west axis. The walls of Feature 4 are constructed of dressed limestone and mortar, and the structure is floored with concrete. A single timber within the structure indicates that it once had a wooden cover or roof.

Feature 5 is a hand-dug well located on the western margins of the site. It is lined with limestone rock and concrete mortar. The observable depth of Feature 5 is 3 m.

Feature 6 is a pile of rubble and construction debris that includes parts of a windmill. It is not possible to determine the original location of these materials, but it appears that a windmill was in use on site, probably in conjunction with the well.

### ***Cultural Materials***

A variety of artifacts were observed on site, including glass (solarized, light blue, cobalt blue, and clear), unidentified brown ceramics, aluminum cans, wire windmill parts, Groesbeck bricks (post 1916, Steinbomer 1982), cut limestone, wooden fence posts, and stove parts. One cut nail was collected. The most diagnostic materials (solarized glass and a marked brick) suggest a late-nineteenth- to early-twentieth-century occupation.

### ***Discussion and Assessments***

Although artifacts associated with 41CV450 are sparse, preserved features are still extant. The presence of significant subsurface deposits is unlikely in this context due to the lack of sediments. Nevertheless, horizontal spatial integrity and a range of construction types are apparent from the features. This site has the potential to yield information about farmstead layout; therefore, the archeological integrity of this site is assessed as moderate. This assessment coincides with the previous assessment of this farm/ranch headquarters site as potentially eligible for NRHP listing under Criterion D with reference to the agriculture context (Freeman et al. 1999).

## **41CV466**

### ***Site Setting***

41CV466 is a historic farm/ranch site defined by the extensive remains of rock walls and foundations. It is located on an intermediate upland slope above tributaries to Brown's Creek, ca. 500 m due east of Jack Mountain in training area 82. The site is plotted on the Fort Hood 7.5-minute topographic quadrangle at UTM zone 14 and located on aerial photo sheet 40. Site elevation is approximately 250 m above mean sea level.

### ***Previous Work***

On 30 March 1980, DeBremaecker (Texas Archeological Survey) described this site as a homestead located off an old road. Site dimensions were established as 90x70 m. The site was mapped, and a button and a decorated porcelain sherd were collected. Several other artifacts

were observed, including a 1933 Texas license plate, other car parts, machinery and tools, domestic utensils, ceramic sherds, wire, and a variety of glass fragments. The site condition was described as excellent, with only 5 percent of the surface impacted by cattle grazing, ordnance, and erosion.

On 21 February 1988, the site was monitored by Mesrobian (Texas A&M University). Site dimensions were enlarged to 160x120 m, but conditions had not changed significantly.

Stabler (1999:218–219) has compiled a history for the property on which 41CV466 is located. From 1872 to 1878, Richard Hill occupied his preemption survey, on which 41CV466 is located. From 1879 to 1902, James W. P. Brookshire and family occupied the property. In 1903, they deeded the property to their son, Josiah Lee, who probably continued to live on the property from 1903 until 1916. The occupation status of the property remains unclear from 1916 to 1942, although it did maintain its assessed value, which suggests that utilization continued.

The site file and site history were reviewed in 1999 for the purpose of making a National Register eligibility recommendation. Based on this study, the site's archeological integrity was assessed as high (Blake 2001:Appendix A), and it was recommended as potentially eligible for NRHP listing under Criterion D domestic property relative to the agriculture context developed for Fort Hood (Freeman et al. 1999:260).

### ***Work Performed***

On 28 October 1999, a survey crew reassessed the site. Site boundaries were extended southward to include a well near the creek, and the entire site was remapped (Figure 8). The redefined site dimensions are 300x130 m (39,000 m<sup>2</sup>) on a north-south axis. The site boundary was recorded using GPS, and a photographic record was made of current site conditions. The probability of subsurface archeological deposits in this intermediate upland context is minimal. Based on the combination of a low potential for buried deposits and safety considerations related to live ordnance, no shovel tests were excavated at this site.

### ***Cultural Features***

Three surface features dominate this site.

Feature 1 is a foundation of mortared limestone rocks measuring approximately 12x12 m. The vestiges of a stone-lined path or walk run north from the northern side of the foundation. On the southern side, a concentration of rough limestone blocks and bricks may mark the location of a hearth and chimney. Several tools, ceramics, and window glass were noted in and around Feature 1.

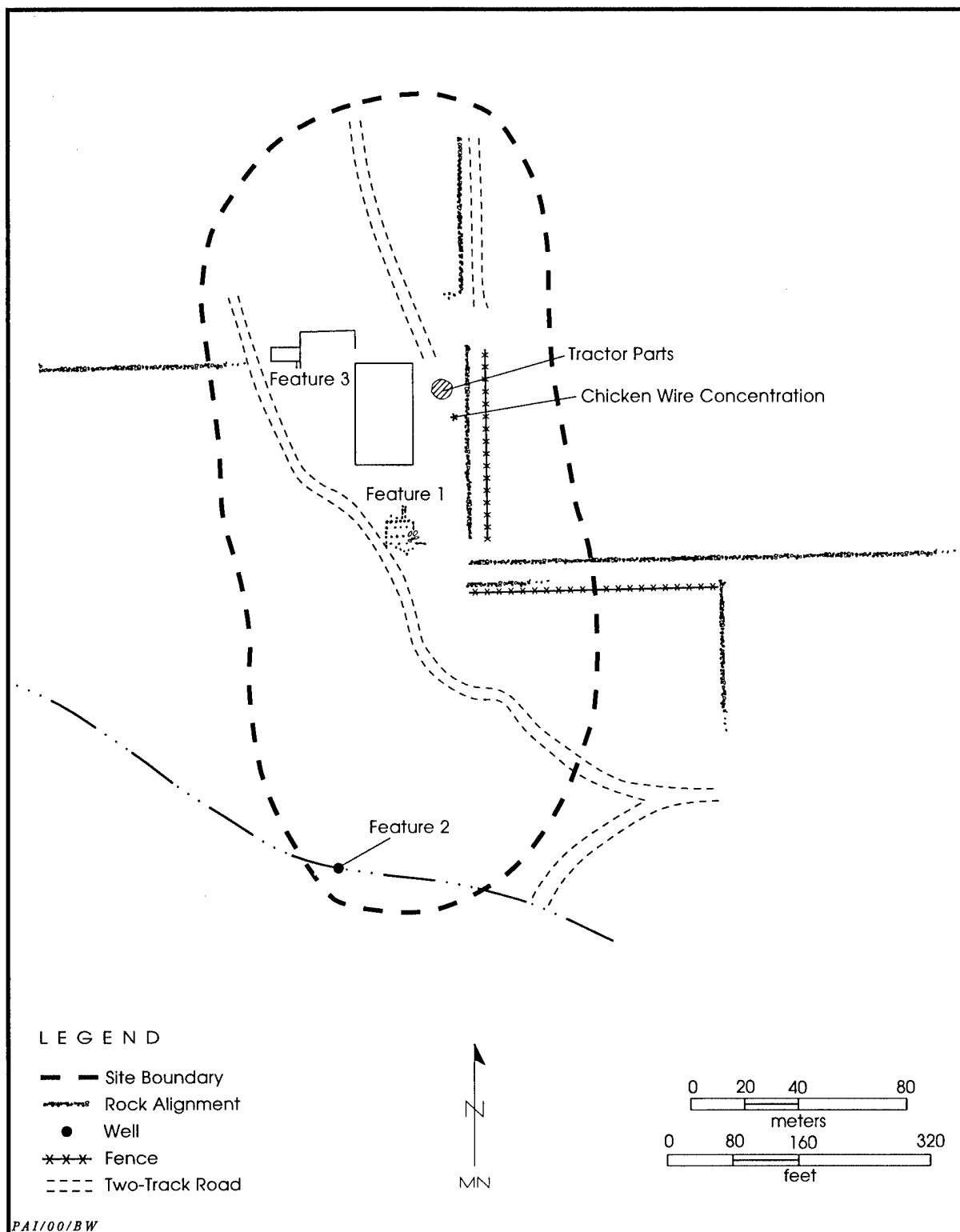
Feature 2 is a well located adjacent to a small drainage approximately 112 m south of Feature 1. The well is heavily overgrown with trees and grass, so its width and depth could not be ascertained.

Feature 3 is a series of dry masonry stone walls located 15 m north of Feature 1. These walls form three adjoining rectangular sections and could represent stock pens or corals. The largest and easternmost section has dimensions of 20x35 m and is oriented on a north-south axis. This section is well preserved; this is particularly true on the northwest side, where wall remnants still stand up to 1 m high. The next section to the west appears to be almost as large, but it has been heavily damaged by ordnance impact. It measures approximately 20 m east-west, but its north-south dimension was not ascertained. The third section is approximately 12x8 m. It, too, is well preserved and has one small opening in its southern wall.

In addition to these features, other modifications to the landscape were observed. The most prominent is a system of stone walls, sometimes accompanied by barbed wire fence, that forms the eastern boundary of the site. These walls may be related to field or pasture enclosures 500 m north of the site and to a larger system of field boundaries prevalent across this portion of the survey area. Another modification to the landscape is a remnant of a two-track road that runs between Feature 3 and a parallel rock wall to the east. This road remnant continues northwest off the site for approximately 50 m before it can no longer be discerned.

### ***Cultural Materials***

Metal, glass, and ceramic fragments were observed scattered across the surface of the site. Table 6 summarizes the artifacts collected. The ceramic assemblage included stoneware, white-ware, and bone china. Glass fragments included pressed table glass (solarized, blue, and light



**Figure 8.** Site map of 41CV466.

**Table 6. Summary of artifacts collected from 41CV466**

Number of Specimens	Identification	Date	Reference
<b>CERAMICS</b>			
1	Whiteware with maker's mark (too fragmentary to identify)	late 19th century	Gates and Ormerod 1982:185
1	Whiteware with molding and dark cobalt decoration	late 19th to early 20th century	Jasper 1996
1	Bone china with blue underglaze chinoiserie decoration	ca. 1920	Majewski and O'Brien 1987
1	Bristol-glazed stoneware pitcher sherd, "Fishscale and Wild Rose" pattern	early 20th century	McNerney 1981:127
1	Bristol-glazed stoneware with natural glazed interior	ca. 1890–1900	Lebo 1987:121
<b>GLASS</b>			
1	Aqua "Pinex" proprietary medicine bottle with screw top closure	early 20th century	Fike 1987:240
1	Aqua proprietary medicine bottle neck with double ring finish and cork closure	late 19th to early 20th century	Fike 1987
1	Clear canning jar base—"Kerr/Sand Springs, OK"	ca. 1915–1919	Toulouse 1969:170
2	Clear canning jar base fragments—"3 Rivers"	ca. 1925–1937	Toulouse 1969:306
1	Aqua canning jar base	late 19th to early 20th century	Toulouse 1969
1	Brown jar base fragment with Owens Illinois Glass Company mark	1929–1954	Toulouse 1971:403
1	Clear jar base fragment with Owens Illinois Glass Company mark	1932–1943	Toulouse 1971:406
1	Solarized glass canning jar insert	1875–1914	Toulouse 1969
1	Sherd from solarized glass tumbler	1875–1914	Jones and Sullivan 1989:13
1	Pink Depression glass goblet sherd	ca. 1920–1940	Florence 1996
1	Opaque white Depression glass sherd—basket weave motif, probably a lid	ca. 1920–1940	Florence 1996
2	Blue Depression tumbler/juice glass fragments	ca. 1920–1940	Florence 1996
1	Uranium green Depression glass, footed dish made by the Federal Glass Company	1928–1933	Pickvet 1995:301–302
<b>METAL</b>			
1	3-tine fork	probably 19th century	Noël Hume 1969:182
1	4-tine fork stamped "US"	1918	Noël Hume 1969:182
1	Tool, bastard file	late 19th to early 20th century	Walker 1994
1	Tool, wood working gouge	late 19th to early 20th century	Walker 1994:156
1	Barbed wire fragment	post 1870	Clifton 1970

## *Archeological Survey and Site Reassessments in the Live Fire Area*

blue), container glass (aqua and solarized), a Levi Garrett snuff bottle, and window glass. Metal objects observed consisted of a variety of household utensils, tools, tractor parts, wire, nails, and tin fragments. In general, these artifacts represent a cross section of domestic/household goods and farm-related implements dating from ca. 1880 through the Depression.

### ***Discussion and Assessments***

The spatial layout of 41CV466 survives in good condition, and the horizontal relationships of a variety of features and enclosures are readily discernable. In addition, the relationship of the site to surrounding field boundaries and old road remnants, along with the presence of a variety of diagnostic artifacts, increases the potential of the site to yield archeological information. The archeological integrity of 41CV466 is high.

The property history, presence of multiple features, and artifacts dating to the early twentieth century indicate that this site and its structures were utilized from the late nineteenth century until acquisition. This investigation indicates that 41CV466 has a high degree of archeological integrity. Therefore, in agreement with Freeman et al. (1999), this domestic site is recommended as potentially eligible for NRHP listing under Criterion D with reference to the agriculture context developed for Fort Hood.

### **41CV583**

#### ***Site Setting***

Site 41CV583 is a prehistoric rockshelter situated just below the escarpment rim on the southeast side of Jack Mountain in training area 82. The site is plotted on the Fort Hood 7.5-minute topographic quadrangle at UTM zone 14 and located on aerial photo sheet 40. The area is covered with moderately heavy juniper vegetation. Site elevation is 315 m above mean sea level.

#### ***Previous Work***

On 17 August 1983, Thomas (Fort Hood) recorded this site and its condition. The shelter had been used as a bunker, but no looting was evident. No artifacts were observed inside the

rockshelter, but debitage was noted downslope. Military activity had damaged an estimated 90 percent of the site.

In 1987 or 1988, an unnamed individual from Texas A&M University monitored the site. Though 90 percent of the site's surface was considered disturbed, site condition was described as good. No other information was recorded.

### ***Work Performed***

On 28 October 1999, a survey crew reassessed the site and produced a plan and profile of the rockshelter. Maximum shelter dimensions were defined as 10x2 m (20 m<sup>2</sup>). Shovel probes confirmed that no significant deposits were present within or near the rockshelter. Shovel testing was not possible since there was only 1 cm of blown sand in some areas, while much of the shelter floor was bedrock. The site location was recorded using GPS, and a photographic record was made of site conditions.

### ***Cultural Materials***

No cultural materials were observed on this site.

### ***Discussion and Assessments***

Site 41CV583 is a rockshelter that contains less than 1 cm of soil deposition. No cultural materials were observed associated with this overhang. If any cultural deposits were present in the shelter or downslope, extensive disturbance has obliterated them and left no trace. Site 41CV583 has no archeological research potential, and is recommended as not eligible for National Register listing.

### **41CV712**

#### ***Site Setting***

Site 41CV712 is a prehistoric open campsite situated on an upland escarpment overlooking the west edge of Hargrove Creek in training area 83. The site is plotted on the Fort Hood 7.5-minute topographic quadrangle at UTM zone 14 and located on aerial photo sheet 40. Most of the site is situated on a gently sloping intermediate upland, but its eastern edge is located on a flat bench above Hargrove Creek. The site is covered

with moderately heavy juniper vegetation, changing to grasses upslope. Site elevation is 250 m above mean sea level.

### ***Previous Work***

On 1 November 1983, Turpin (Texas A&M University) recorded the site and established site boundaries as 110x140 m along a northwest-southeast axis (recorded as Field Site No. 810 in Carlson et al. 1986:117–118). The deposits were described as shallow and composed of loam with limestone gravel and weathered bedrock. In addition to a burned rock accumulation, two projectile points (one identified as a Martindale dart point and one untyped arrow point), a prismatic blade, a perforator, and a side scraper were collected. Debitage, bifaces, and unifaces were observed. Approximately 10 percent of the site's surface had been disturbed by military activities and erosion.

### ***Work Performed***

On 28 September 1999, a survey crew reassessed the site. The previous site map accurately reflected the current condition of the site, so a new map was not needed. Previous site dimensions of 110x140 m (15,400 m<sup>2</sup>) were confirmed. Two shovel tests were attempted, but bedrock was encountered at less than 10 cm, so the depth of the deposits proved to be negligible. The site location was recorded using GPS, and a photographic record was made of the current site conditions.

### ***Cultural Materials***

A sparse scatter of flakes and one tool were observed on the eastern edge of the site. In addition, loose concentrations of burned rocks were noted across a narrow bench above Hargrove Creek. The concentration was not dense enough to suggest a feature; however, burned rocks were prevalent near the eastern site margin and absent on the upslope portion of the site. No cultural materials were collected.

### ***Discussion and Assessments***

Cultural materials observed at 41CV712 are on the surface, in an unsealed context with poor integrity. The site is located on an upland land-

form that has negligible potential to contain buried archeological deposits. Recent military activities, vegetation clearing, and vehicle traffic have impacted the surface across the site. For these reasons, site 41CV712 has limited archeological research potential and is recommended as not eligible for listing on the NRHP.

### **41CV719**

#### ***Site Setting***

Site 41CV719 is a large lithic scatter located on and around Round Mountain at the headwaters of Clabber Creek in training areas 44 and 82. The site is plotted on the Fort Hood 7.5-minute topographic quadrangle at UTM zone 14 and located on aerial photo sheet 40. This site is located on an isolated upland and its steep slopes, where primary vegetation consists of moderate juniper stands and tall grasses. The edges of Clabber Creek support a mixed woodland of hardwood and juniper. Site elevation is 266–304 m above mean sea level.

### ***Previous Work***

Site 41CV719 was initially recorded on 16 November 1983 by Moore and Gray (Texas A&M University) (recorded as Field Site No. 828 in Carlson et al. 1986:121–122). Site dimensions were determined to be 100x525 m, and the site was described as a large lithic scatter. Tools, cores, and debitage were observed in moderate quantities. A large quantity of primary flakes was noted. Three dart points (Pedernales, Ensor, and untyped) and one biface were collected. Military activities and roads had disturbed an estimated 33 percent of the site.

On 2 May 1986, Dureka (Texas A&M University) revisited the site. Deposits were estimated to vary between 0 and 50 cm in depth. Some alluvial clay loam was noted near the creek. Researchers observed that the artifact density was low and consisted of debitage and tools. No artifacts were collected. Tracked vehicles, wheeled vehicles, and erosion had impacted 45 percent of the site.

### ***Work Performed***

On 24 and 27 September 1999, a survey crew reassessed the site. As confirmed in 1999, site

dimensions are 1,200x850 m (1,020,000 m<sup>2</sup>). Based on geomorphic context and archeological potential, the site was divided into Subareas A (upland), B (slope), and C (alluvial terrace). Subareas A and B had negligible potential to contain subsurface archeological deposits in primary context due to their geomorphic context, and shovel testing was not warranted in these subareas. Eighteen shovel tests, ranging from 8 to 40 cm in depth, were excavated in Subarea C, along the terraces of Clabber Creek, in order to determine whether alluvial deposits and cultural materials were present. However, the alluvial deposits proved to be negligible in most cases (<10 cm), and few cultural materials were encountered. A small quantity of debitage was found in 1 shovel test; no cultural materials were encountered in the other 17. A photographic record was made of the current site conditions. A new site map was created to show the locations of the shovel tests (Figure 9).

In addition to the prehistoric materials, a historic root cellar, cistern, and artifact scatter were observed in the northern portion of the site. These features and materials were previously recorded as 41CV1198. Although 41CV719 was selected for shovel testing, neither sites 41CV719 nor 41CV1198 were located within the survey area for this project. Therefore, work was limited to the investigations at the prehistoric site. Minimal observations were made for historic site 41CV1198 because its condition had deteriorated since its last site visit, and no further work was done.

### ***Cultural Materials***

Though occasional dense lithics were observed, no cultural materials were collected from Subarea A. Dense quantities of debitage were observed across Subarea B south of Clabber Creek. Heavy vegetation obscured some areas, but all eroded areas exposed dense quantities of lithic debris. In the northeastern portion of Subarea B, north of Clabber Creek, naturally occurring chert nodules (i.e., lag gravels), tested cobbles, and flakes indicated that this was a lithic procurement area. Two dart points (a Gower and a Meserve) and one arrow point (a Talco; see Figure 4) were recovered from this area. These diagnostics present an unusual assemblage. Talco arrow points, though occasionally found in the Fort Hood area, are generally associated

with the Caddoan area of East Texas. The two dart points represent Late Paleoindian and Early Archaic types, which contrast sharply with the Late Prehistoric arrow point. Artifacts tended to accumulate in contexts that indicated deposition during recent erosional events.

Cultural materials recovered from shovel testing in Subarea C consisted of four unmodified flakes from Shovel Test 18. Additionally, a moderately dense scatter of lithic debitage was observed on the surface of Subarea C.

### ***Discussion and Assessments***

Most of site 41CV719 is located on highly eroded upland (Subarea A) or sloped surfaces (Subarea B) with extremely limited potential to contain stratified archeological deposits. Subarea C, thought to potentially contain buried cultural materials in alluvial sediments, proved to be generally shallow and devoid of archeologically significant deposits. Though cultural materials are at times dense across the surface of the site, the archeological research potential of 41CV719 is limited, and it is recommended as not eligible for NRHP listing.

## **41CV791**

### ***Site Setting***

Site 41CV791 is a prehistoric rockshelter situated just below an escarpment rim on the western side of Jack Mountain in training area 82. The site is plotted on the Fort Hood 7.5-minute topographic quadrangle at UTM zone 14 and located on aerial photo sheet 40. Ground cover outside the shelter is moderately heavy juniper vegetation. Site elevation is approximately 314 m above mean sea level.

### ***Previous Work***

On 12 November 1984, Dureka of Texas A&M University recorded the site and established site boundaries (recorded as Field site No. 1229 in Carlson et al. 1987:198). Sparse quantities of lithic debitage were observed. The soil deposition was described as clay loam with limestone inclusions to an unknown depth. Thirty percent of the site had been impacted by “natural limestone exfoliation” and an additional 30 percent by military activities.

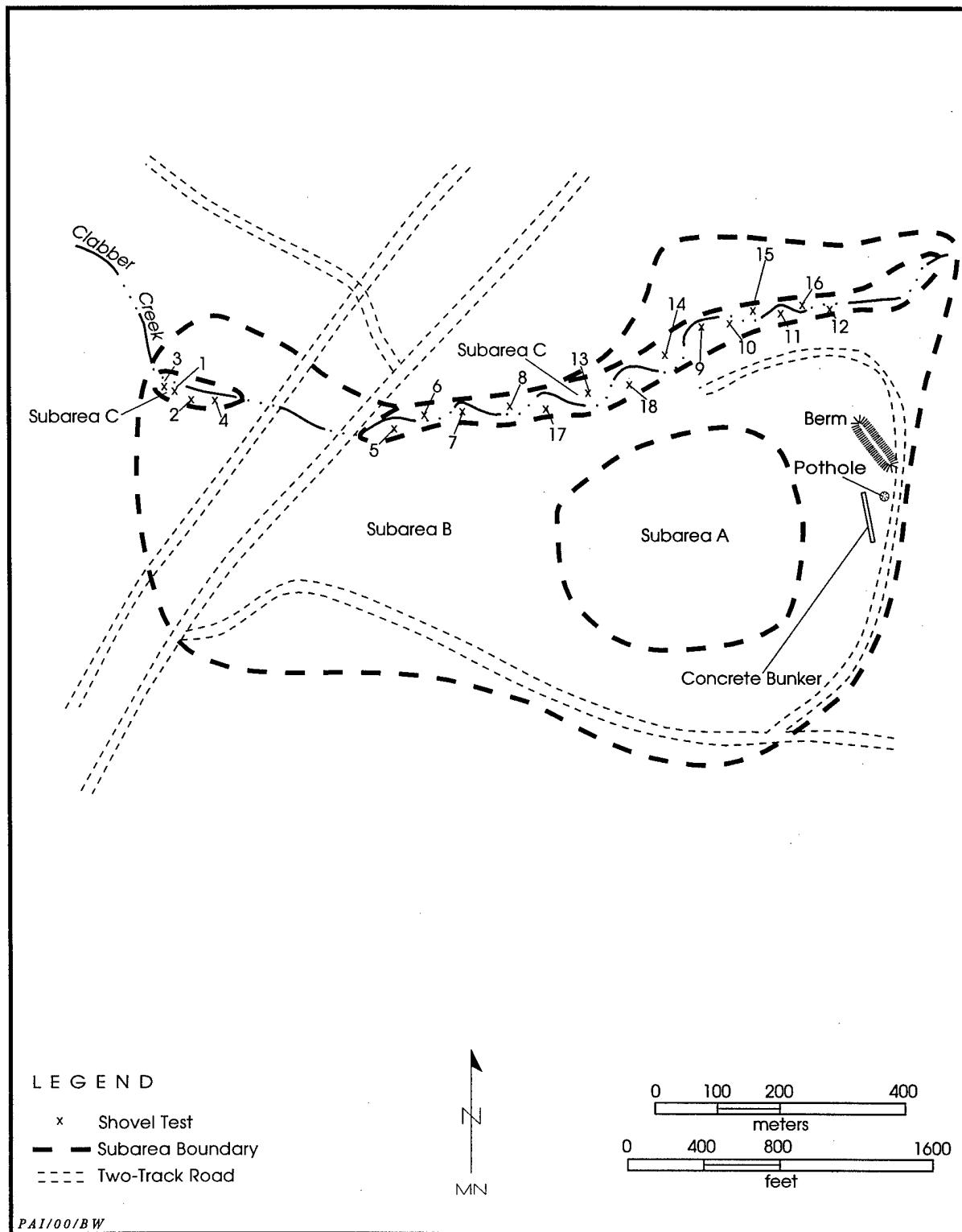


Figure 9. Site map of 41CV719.

### ***Work Performed***

On 28 October 1999, a survey crew reassessed the site. Site dimensions of 6x6 m (36 m<sup>2</sup>) were confirmed. The previous site map was found to accurately reflect the current condition of the site, so a new map was not needed. Because there were no deposits within or near the rockshelter, shovel testing was not possible. The site location was recorded using GPS, and a photographic record was made of the current site conditions.

### ***Cultural Materials***

No cultural materials were observed during the 1999 reassessment.

### ***Discussion and Assessments***

Although cultural materials and deposition were observed in 1984, deposits within the shelter had been completely flushed out by erosion prior to the current revisit. No deposits remain within the rockshelter, and no cultural materials were observed outside the shelter. There was, however, evidence of intense military activities in and around the shelter. Site 41CV791 has very little research potential and is recommended to be ineligible for NRHP listing.

## **41CV952**

### ***Site Setting***

Site 41CV952 is a multicomponent site situated on an intermediate upland knoll between two minor tributaries to Cowhouse Creek, ca. 700 m due south of the east end of Jack Mountain in training area 83. The site consists of a previously recorded historic farm/ranch and a newly identified prehistoric lithic scatter. It is plotted on the Fort Hood 7.5-minute topographic quadrangle at UTM zone 14 and located on aerial photo sheet 48. Vegetation consists of recently burned grasses and a small stand of young oaks near the site's center. Site elevation is approximately 250 m above mean sea level.

### ***Previous Work***

On 16 November 1984, Polk (Texas A&M University) recorded the historic component of

this site. A limestone and concrete foundation of a house was observed, along with associated artifacts. These included ceramics, glass, cast iron objects, dressed limestone, and a coin. A white glass marble, a base fragment of a pink Depression glass vessel, a coin, and a sheep shearing blade were collected. An estimated 10 percent of the site's surface had been impacted by ordnance and animal burrows.

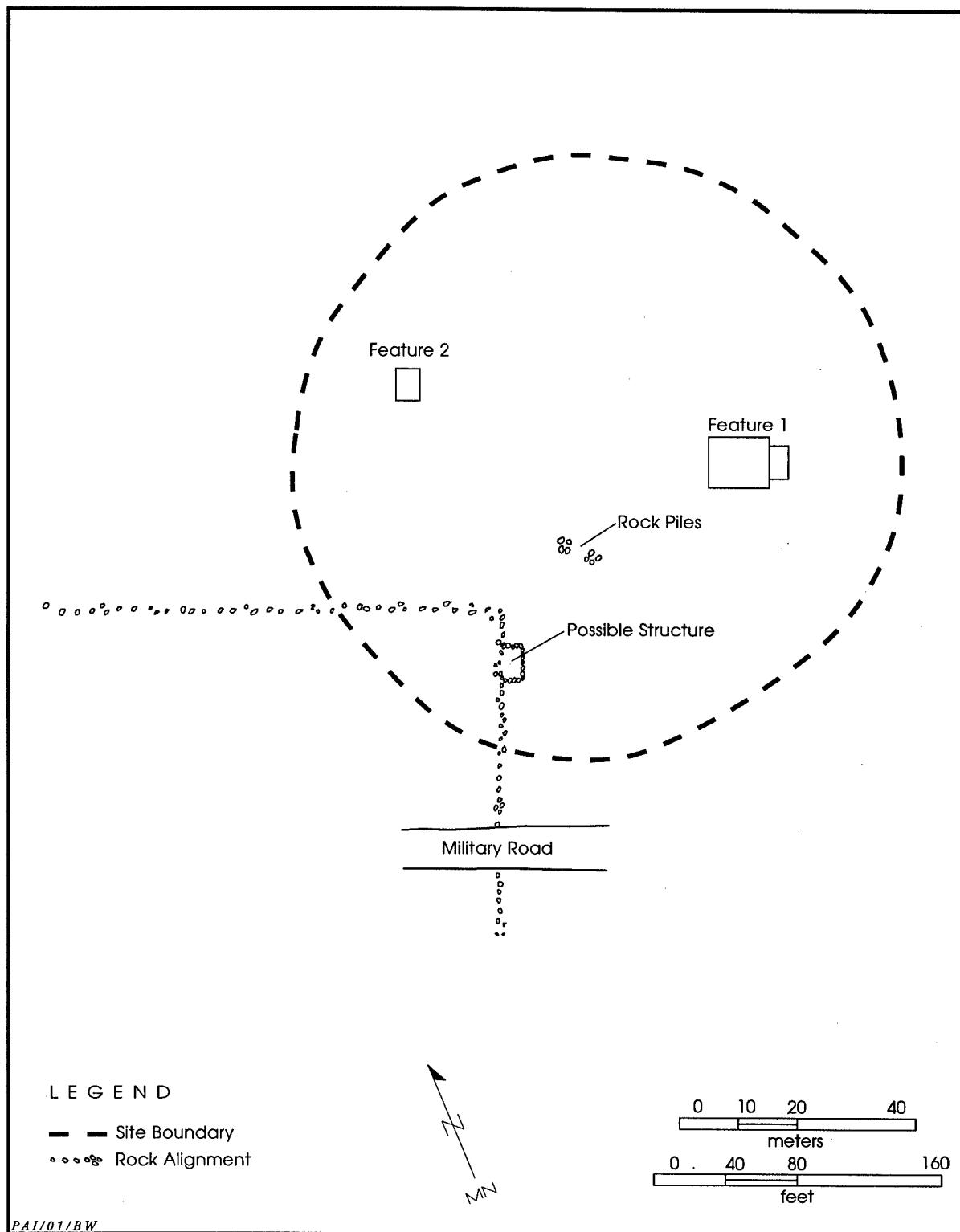
In 1987 or 1988, an unnamed individual from Texas A&M University monitored the site. No date was given for this visit. No additions were made to the existing site record.

Stabler (1999:364–365) has compiled a history for the property on which 41CV952 is located. From ca. 1857 until 1892, the James D. Manning family occupied his preemption survey. When Manning died in 1892, he was buried in the New Graham Cemetery (41CV1475), located on the same property 300 m to the northeast of 41CV952. Manning's widow continued to live on the property until 1910. The status of the property remains unclear between 1910 and 1942 because the owners claimed other primary residences.

The site file and history were reviewed in 1999 for the purpose of making a NRHP recommendation. Based on the findings, the archeological integrity of 41CV952 was assessed as moderate (Blake 2001:Appendix A), and it was recommended as potentially eligible for NRHP listing under Criterion D as a domestic property relative to the agriculture context developed for Fort Hood (Freeman et al. 1999:267).

### ***Work Performed***

On 22 September 1999, a survey crew reassessed the site. The historic component was re-located, and additional observations were made. An underlying, previously unrecorded prehistoric component was noted. The prehistoric component was completely subsumed within the historic site boundaries, so site dimensions of 100x100 m (10,000 m<sup>2</sup>) were unchanged. A new site map was produced for the historic component (Figure 10) and the site boundary was recorded using GPS. A photographic record was made of the current site conditions. Based on the combination of a low potential for subsurface archeological deposits due to lack of sediment and safety considerations related to live ordnance, no shovel tests were excavated at this site.



**Figure 10.** Site map of historic component of 41CV952.

### ***Cultural Features***

Two surface features are found within the historic component of 41CV952. Feature 1 consists of a foundation of mortared limestone rocks forming a ca. 7x7.5-m rectangle oriented east-west. The feature includes the remains of a hearth and chimney on the eastern end, suggesting that a frame house once stood on the foundation. Most of the artifacts observed on site were concentrated in and around this feature.

Feature 2 is a ca. 3x4-m, slightly raised foundation located approximately 40 m west of Feature 1. Few artifacts were observed in association with this feature, and its function could not be determined, although it may represent an outbuilding.

In addition to these features, stone walls appear to denote old field boundaries and mark the southern limits of the site. These features are part of a larger system of stone walls prevalent across this section of the survey area. A concentration of rocks along this wall appears to denote a small rectangular structure in the southern portion of the site.

### ***Cultural Materials***

Historic materials observed were similar to those observed by previous investigators. These include a range of ceramic, glass, and metal artifacts, including stoneware, whiteware (decorated and undecorated), marbles, glass sherds (clear, cobalt, blue, solarized, brown, green, red), possible parts of sheep shears, tin cans, and tack. Especially diagnostic were several bottle bases with manufacture marks. Two bear marks used by the Hazel-Atlas Glass Company of Wheeling, West Virginia, from 1920 to 1964 (Toulouse 1971: 239), and one has a mark used by the Owens Illinois Glass Company of Toledo, Ohio, from 1929–1954 (Toulouse 1971:403). These bases were not collected.

The prehistoric component of this site consisted of a sparse lithic scatter with debitage and tools. The observed artifacts are notable for the large proportion of tools to debitage. Three bifaces, a uniface, two utilized flakes, and two pieces of unmodified debitage were observed.

### ***Discussion and Assessments***

The historic component of 41CV952 appears

to be in much the same condition as when initially recorded in 1984. The house foundation and other features are still evident, and various diagnostic artifacts are present. The site retains aspects of the horizontal farmstead layout. For these reasons, the archeological integrity of the 41CV952 historic component is considered moderate. This assessment coincides with the previous recommendations that this site has moderate integrity (Blake 2001:Appendix A) and is recommended as potentially eligible for listing on the NRHP under Criterion D as a domestic property relative to the agriculture context (Freeman et al. 1999:267).

The prehistoric component of this site is a sparse scatter of lithic debitage and tools exposed on the surface of an intermediate upland knoll. The potential for stratigraphically discrete archeological deposits on this site is negligible. Furthermore, the historic occupation has seriously undermined the spatial integrity of any prehistoric remains. Therefore, the prehistoric component of this site is considered to have limited research potential and is recommended as not eligible for NRHP listing.

## **41CV1475**

### ***Site Setting***

Site 41CV1475 is a historic cemetery located ca. 500 m southeast of Jack Mountain in training area 83. The site is plotted on the Fort Hood 7.5-minute topographic quadrangle at UTM zone 14 and located on aerial photo sheet 48. It is situated on an upland knoll overlooking tributaries to Cowhouse Creek. Vegetation consists of recently burned grasses. Site elevation is approximately 251 m above mean sea level.

### ***Previous Work***

On 16 November 1984, Polk (Texas A&M University) initially recorded the site and established site dimensions at 60x40 m (recorded as Field Site No. 1235 in Carlson et al. 1987:117–118). The site was described as having numerous graves, as indicated by reinforced concrete plot borders; grave depressions; and clusters of yucca and iris. Artifacts consisted primarily of decorative glass. No grave markers were noted, and researchers suggested that some graves had been exhumed. An estimated 90 percent of the

site's surface had been disturbed, primarily by military activities.

Stabler's (1999:525) history for 41CV1475 indicates that it is located on the same property as 41CV952, and therefore the two sites share the same legal history. The New Graham Cemetery represents the second location of a cemetery associated with the Primitive Baptist Church, dedicated in 1884 on the Jesse Graham Survey and moved at an unknown date to its second location on the Manning Survey. Notably, property records for the tract containing 41CV1475 do not mention a cemetery, though its identification as New Graham Cemetery appears to be correct.

In 1999, the site file and site history were reviewed for the purpose of making a NRHP recommendation. Based on the findings, the site's archeological integrity was assessed as moderate. It was recommended as eligible for NRHP listing under Criterion A because it is a cemetery site and under Criterion D because of the potential for unrelocated burials (Freeman et al. 1999:274). Cemeteries on Fort Hood have also been designated as Traditional Cultural Places (TCPs) in consultation with Fort Hood and the Texas Historical Commission (Boyd 1999).

According to Fort Hood Cemetery Records (n.d.), approximately 52 burials were moved from New Graham Cemetery to Gatesville on 6 August 1942. Some of the graves had markers. Family names included Blackwell, Hill, Murphy, Whatley, Graham, Bradshaw, and many others, including unknown individuals.

### ***Work Performed***

On 22 September 1999, a survey crew reassessed the site. The historic cemetery and its previously noted features were re-located and its condition reevaluated. The 1984 site map was found to be an accurate depiction of the site's current condition, and no changes were made (Figure 11). The previously defined site dimensions of 60x40 m (2,400 m<sup>2</sup>) also remained unchanged. A photographic record was made of the current site conditions.

### ***Cultural Features***

Cultural features include clusters of domestic iris and yucca, symmetrically arranged grave depressions, and reinforced concrete borders

around grave locations. On some parts of the site, the grave depressions may have suffered from ordnance impact, and it is difficult to distinguish individual burials. In other portions of the site, the grave depressions are easily distinguishable; in most cases they are ca. 20 cm deep, with gradually sloping sides. The concrete borders are ca. 10 cm high and 10 cm wide. Many have been displaced.

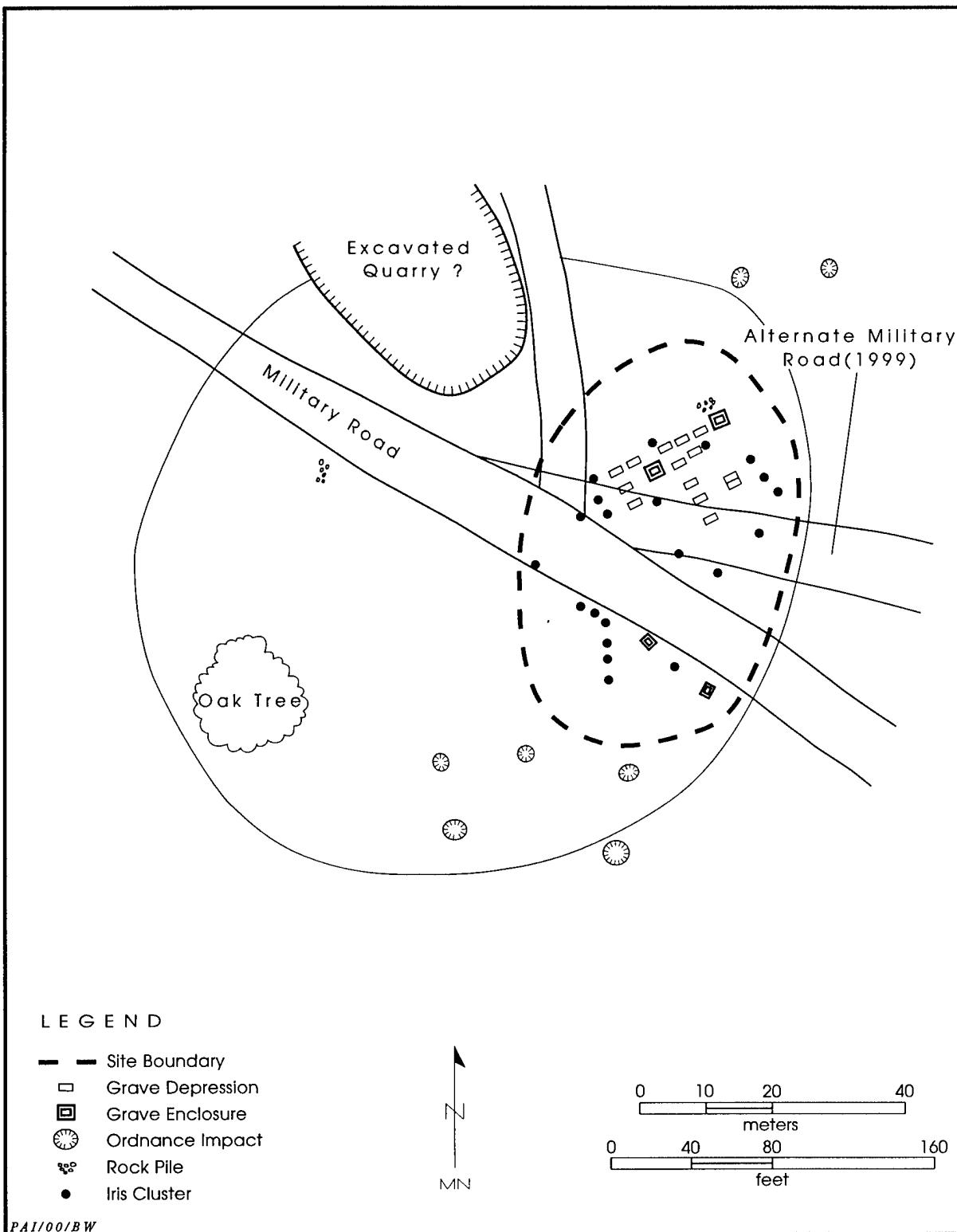
### ***Cultural Materials***

The only artifacts observed were decorative vessel glass sherds of various colors, including aqua, manganese, purple and clear. These were concentrated near grave depressions.

### ***Discussion and Assessments***

As with many of the cemeteries on Fort Hood that have been relocated, this cemetery is not fenced and no grave markers remain. A large tank trail across the southern portion of the site has destroyed the central two-thirds of the cemetery. This road was noted on the previous visit; however, it has since been widened and moved farther north, impacting more of the site. The likelihood that this site will continue to be impacted is considerable. Continued deterioration of the site's condition and the relocation of burials has rendered its archeological integrity low.

Nevertheless, as a cemetery, site 41CV1475 has inherent value as a cultural resource and a part of local history. Historic documents connect local property owners (e.g., the Mannings) and inhabitants with burials in the cemetery (Fort Hood Cemetery Records n.d.). Therefore, its position in the landscape and other aspects of the cemetery are important for understanding the history of the Fort Hood area as outlined in the rural development theme of the historic context developed for the project area. Site 41CV1475 is recommended as eligible under Criterion A, and may still function as a Traditional Cultural Property to area residents. Additionally, it is possible that unmarked graves were missed during the 1942 cemetery relocation effort. There are precedents of relocated cemeteries yielding additional human remains and for unmarked graves being common in historic cemeteries. As Baker et al. (2000:1) note, "In the past, relocations and exhumations of historic burials often



**Figure 11.** Site map of 41CV1475, New Graham Cemetery. Adapted from 1984 sketch map in site file.

were done by mortuary firms using backhoes, often in a careless manner (see Fox 1984:12–14; Carter and Ragsdale 1976:36), resulting in portions of burials or even entire burials being missed.” The presence of unmarked graves in historic cemeteries dating to the late nineteenth century also is well documented in archeological literature. At the Tucker Cemetery in rural Delta County, Texas, 10 of the 16 burials that were exhumed and relocated were unmarked and were found only after an extensive mechanical search for grave shafts (Lebo 1988). Similarly, over half of the 54 graves exhumed and relocated from the Old Seven Rivers community cemetery in Eddy County, New Mexico, were unmarked and were located by mechanical stripping (Ferguson 1993). Consequently, the probability that unmarked graves were missed during any of the 1940s burial relocations on Fort Hood is very high. Site 41CV1475 is considered to be an institutional property relative to the rural development context (Freeman et al. 1999). It is recommended as eligible under Criterion A and potentially eligible under Criterion D.

#### **41CV1621**

##### ***Site Setting***

Site 41CV1621 is a previously unrecorded historic farm/ranch site situated on an intermediate upland slope overlooking tributaries to Cowhouse Creek in training area 83. It consists of the remains of three surface features with associated artifact scatters. The site is plotted on the Fort Hood 7.5-minute topographic quadrangle at UTM zone 14 and located on aerial photo sheet 48. Vegetation is dominated by recently burned grasses. Site elevation is approximately 250 m above mean sea level.

##### ***Work Performed***

On 20 September 1999, a survey crew recorded site 41CV1621. A site map was produced (Figure 12), a photographic record was made of the site, and the site boundary was recorded using GPS. Overall site size was defined as 75 m in diameter based upon artifact distribution. Due to the minimal probability of subsurface archeological deposits in an upland context, along with safety considerations related to live ordnance, no shovel tests were excavated.

##### ***Historical Background***

Site 41CV1621 is located on the same property as 41CV952 and 41CV1475, and therefore has the same legal history.

##### ***Cultural Features***

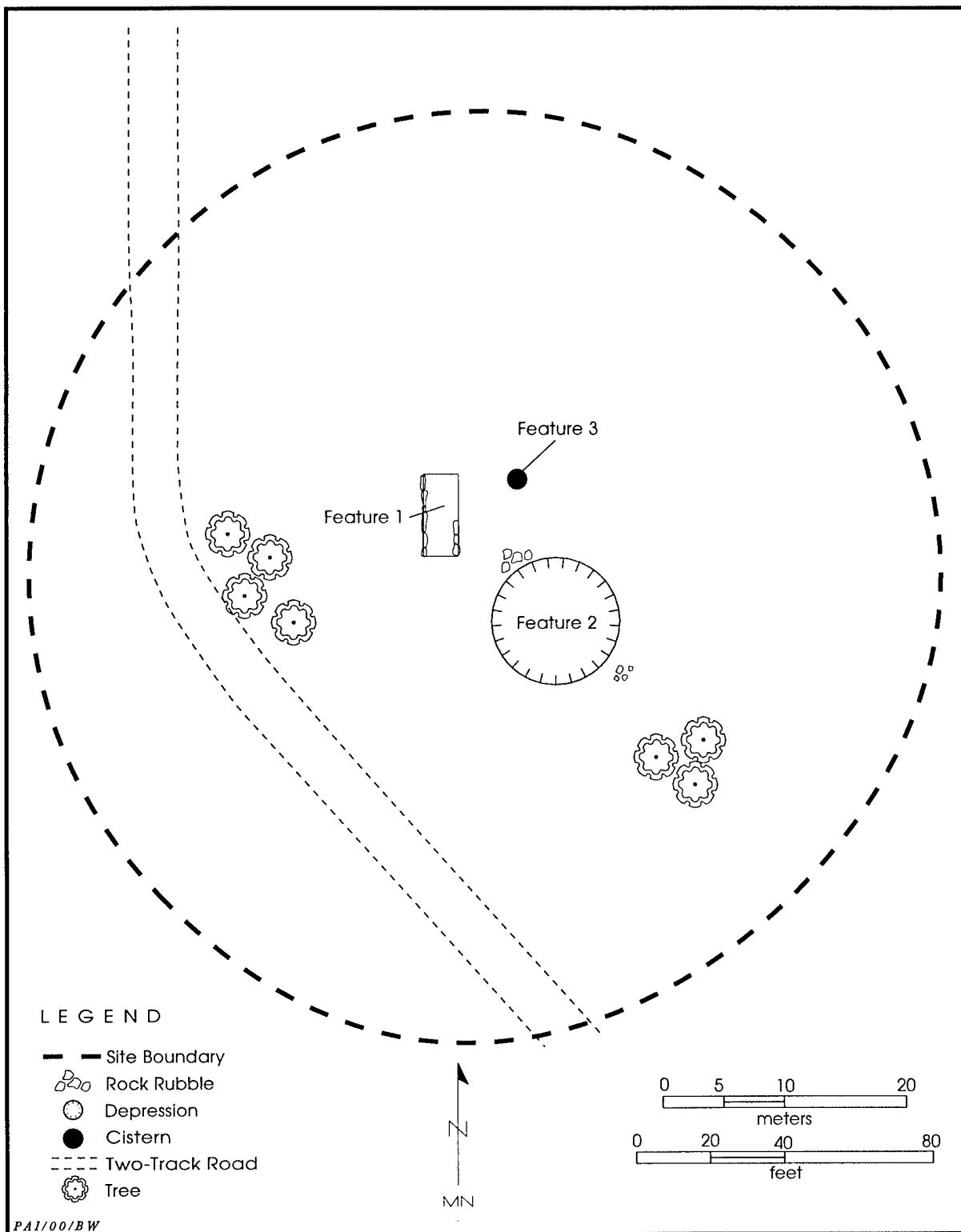
Three features define 41CV1621. Feature 1 is a rectangular subsurface structure measuring 6x2 m, probably representing a root or storm cellar. The extant sides of the structure are composed of two to three courses of dressed limestone blocks. A step on the edge of the depression indicates that the entrance was on the south side. Feature 2 is a large circular depression ca. 10 m in diameter. Small piles of construction rubble around the outside suggest that this feature is the remains of a structure, possibly a house, that has been impacted. The concentration of rubble at the northwest edge of Feature 2 is suggestive of a possible fireplace. Feature 3 is a stone-lined cistern. It is bell shaped, with a diameter of 1 m at the mouth and at least 2 m at ca. 3 m deep. Because it was partially filled with water and rubble, the depth of the cistern is not known.

##### ***Cultural Materials***

Artifacts observed included porcelain, earthware, glass (opaque, white, aqua, brown, and solarized), cut stone, and barbed wire. Two container glass sherds were collected. One is a brown glass panel-style proprietary medicine bottle (Fike 1987). The other is a machine-made aqua glass canning jar base fragment of a type whose peak production was ca. 1917 (Jones and Sullivan 1989:37–39). The artifact assemblage represents typical domestic and farm/ranch items from the late nineteenth and early twentieth centuries.

##### ***Discussion and Assessments***

Despite impacts to the site surface from burning and ordnance, a measure of spatial integrity exists. The surface features appear to represent a house location, a cistern, and a root cellar. Associated artifacts represent a domestic assemblage from the turn of the century, dominated by early twentieth century artifacts. Due to the presence of several identifiable features



**Figure 12.** Site map of 41CV1621.

associated with diagnostic artifacts, the archeological integrity of this site is moderate, and the site is recommended as potentially eligible for NRHP listing under Criterion D as a domestic property relative to the agriculture context (Freeman et al. 1999).

#### **41CV1622**

##### ***Site Setting***

Site 41CV1622 is a previously unrecorded historic farm/ranch site situated on an upland knoll approximately 15 m west of an unnamed tributary to Brown's Creek in training area 83. It contains a dense artifact scatter. The site is plotted on the Fort Hood 7.5-minute topographic quadrangle at UTM zone 14 and located on aerial photo sheet 48. It is bounded on the south by the remains of an east-west stone wall. Though a cluster of three small oak trees is present in the northwest portion of the site, the vegetation consists primarily of recently burned grasses. Site elevation is approximately 250 m above mean sea level.

##### ***Work Performed***

On 20 September 1999, a survey crew recorded 41CV1622. A site map was produced (Figure 13) and site dimensions were established as 50x50 m (2,500 m<sup>2</sup>) based on artifact distribution. The site boundary was recorded using GPS, and a photographic record was made of the site. Based on a low probability of subsurface archeological deposits due to lack of sediments, and safety considerations related to live ordnance, no shovel tests were excavated at this site.

##### ***Historical Background***

Site 41CV1622 is located on the same property as 41CV952, 41CV1475, and 41CV1621, and has the same legal history.

##### ***Cultural Features***

A cluster of limestone rocks joined by mortar, located near the center of the site, is the only feature. It provides evidence of a foundation (possibly a remnant of a chimney), but may be displaced.

##### ***Cultural Materials***

The general artifact scatter consisted of widely dispersed, but moderately dense quantities of ceramics, glass (clear and solarized), and metal (horseshoes). Fragments of a cast iron stove were concentrated in one area of the site. Table 7 summarizes the artifacts, all ceramic sherds, collected from the site. Most of these artifacts date to the late nineteenth century, with one specimen as early as 1870. However, there also are artifacts dating as late as the 1920s.

##### ***Discussion and Assessments***

Probably less than 20 percent of 41CV1622 survives intact. The ground surface has been burned, and the explosion of ordnance has impacted the site. The potential for subsurface archeological deposits is negligible, and the probability of cultural materials in an archeologically discrete context is minimal. Overall, the research potential for this site is low, as is its archeological integrity. In comparing this site's history with the themes, property types, and registration requirements outlined in the Fort Hood historic context (Freeman et al. 1999), 41CV1622 does not meet any of these standards. Therefore, it is recommended that the site be considered not eligible under any of the NRHP criteria.

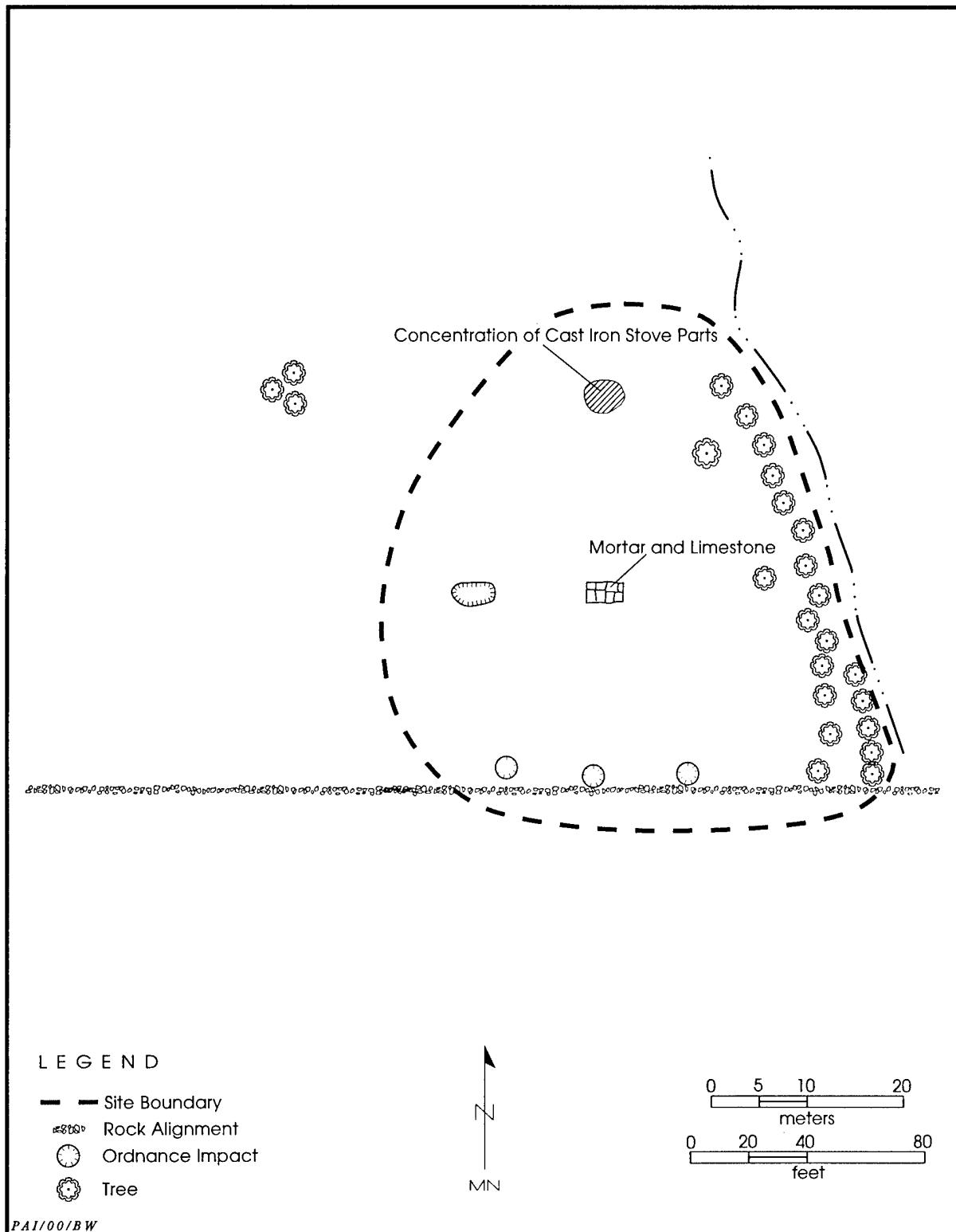
#### **41CV1623**

##### ***Site Setting***

Site 41CV1623 is a previously unrecorded historic farm/ranch site located on an upland slope that descends to an unnamed tributary of Brown's Creek, 200 m north of Jack Mountain in training area 82. It consists of surface features and scattered artifacts. The site is plotted on the Fort Hood 7.5-minute topographic quadrangle at UTM zone 14 and located on aerial photo sheet 41. Vegetation is sparse except along the tributary edge, where mixed juniper and hardwoods form moderately heavy ground cover. The surface of the site has recently been burned. Site elevation is approximately 250 m above mean sea level.

##### ***Work Performed***

On 23 September 1999, a survey crew recorded the site. A site map was produced



**Figure 13.** Site map of 41CV1622.

**Table 7. Summary of artifacts collected from 41CV1622**

Number of Specimens	Identification	Date	Reference
1	Whiteware with blue "Willow" transfer print; probable Allerton maker's mark	ca. 1890–1912	Godden 1964:30
1	Undecorated ironstone; partial Meakin maker's mark	late 19th century	Godden 1964:425–427
1	Undecorated ironstone; partial Royal Arms-style maker's mark (too fragmentary to identify)	typical late 19th century	—
1	Whiteware with maker's mark and fugitive decal decoration (too fragmentary to identify)	probable early 20th century	—
1	Molded ironstone cup plate (burned)	ca. 1880	—
1	Porcelain doll leg from a china limb doll	late 19th century	Stirn 1990

(Figure 14), a photographic record was made of the site, and the site boundary was recorded using GPS. Site dimensions were established as 140x75 m (10,500 m<sup>2</sup>) based on artifact distribution. The probability of subsurface archeological deposits in this upland context was minimal, so based on the combination of low archeological potential due to lack of sediments and safety considerations related to live ordnance, no shovel tests were excavated.

### ***Historical Background***

Site 41CV1623 is located on the same property as 41CV466, and therefore has the same legal history.

### ***Cultural Features***

Three features are the core of this site. The most prominent, Feature 1, is the remains of a chimney and fireplace built of roughly dressed limestone masonry with mostly even coursing. The chimney stands approximately 2 m high. The fireplace and hearth appear to be intact, though covered in destruction debris. The width of the chimney at its base is 1.3 m. Associated with the chimney are remnants of a single-course rock foundation for the house. The foundation remnants are discontinuous, but based on their position the chimney appears to have been on the interior of the structure.

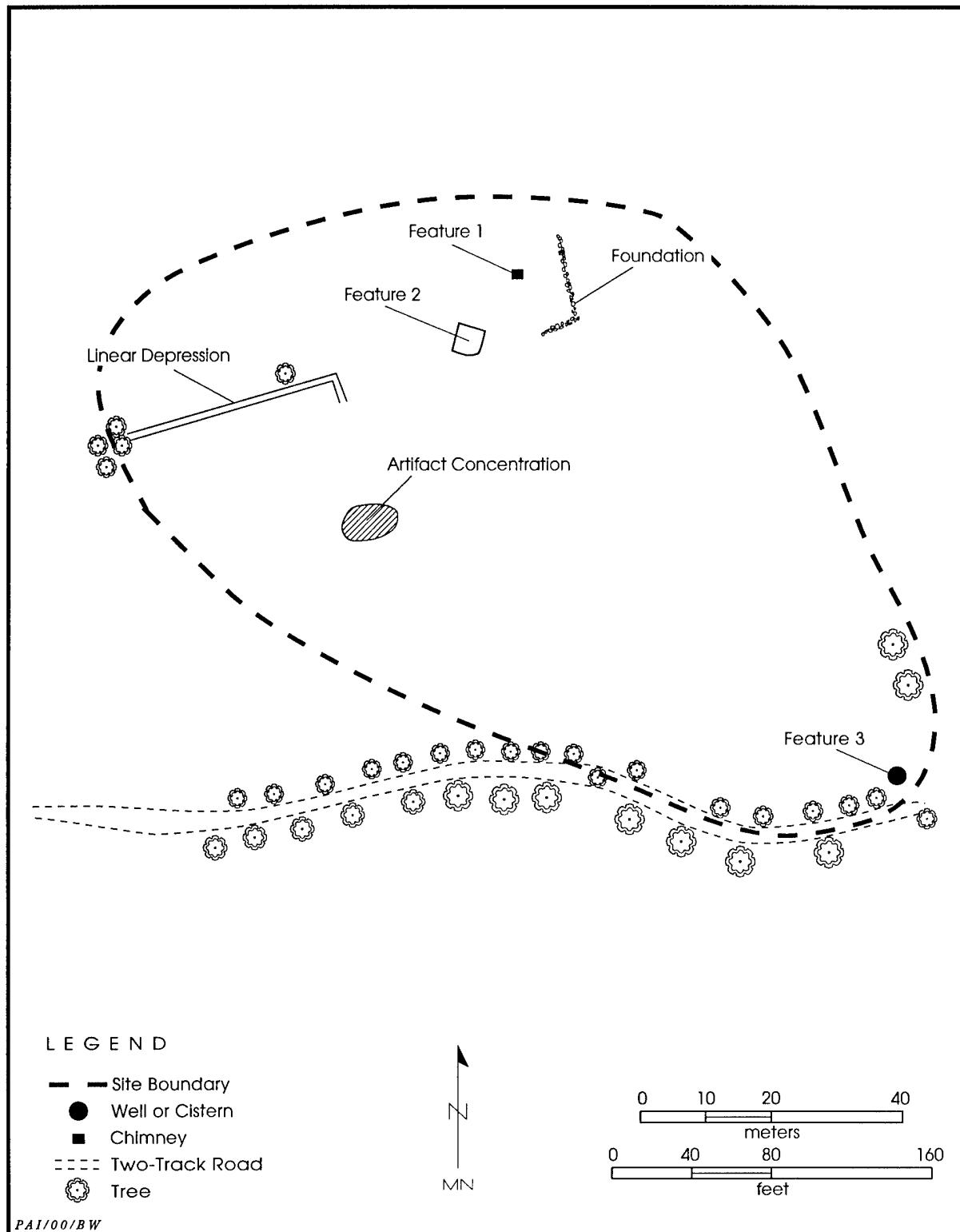
Feature 2 is the remains of a subsurface structure, probably a root cellar. This feature is composed of a rectangular excavation shored up

with cut cedar poles. The depth of the feature is 1.5 m, and its interior dimensions are 2x1 m. These dimensions are only approximate, because much of the feature has collapsed. Additionally, military activities have disturbed its south and east portions. However, two intact sides still survive, and the other two are discernable. No evidence of a superstructure has survived.

Feature 3 is a cistern or well constructed of limestone masonry. The mouth of this feature is 75 cm in diameter, but its depth and shape are not known. Feature 3 is situated at the far southeastern edge of the site near a tributary, approximately 90 m away from Features 1 and 2.

### ***Cultural Materials***

Most of the artifacts associated with 41CV1623 were located around the chimney feature and in a loose concentration in the western quarter of the site. These artifacts included a variety of ceramics, glass, and metal. Ceramic artifacts included brown glazed earthenware, bone china (decorated and undecorated), and whiteware. Glass artifacts consisted of window glass, light green and solarized bottle glass, milk glass sherds, and blue and brown glass sherds. A glass sherd with an Owens Company mark used from 1929 to 1954 (Toulouse 1971:403) was also observed. A fragment of an automobile license plate on which the state and date were not preserved, cut nails, barbed wire, cast iron fragments (perhaps from a stove), horseshoes, and unidentified hardware associated with the chimney were also noted.



**Figure 14.** Site map of 41CV1623.

One Buffalo nickel minted in Denver in 1936 was collected.

### ***Discussion and Assessments***

Though the chimney still stands, the site has been impacted by military activity. In several places, trenches have been cut across the site, and there are many depressions caused by ordnance impact or demolition. The root cellar is mostly collapsed due to recent activity. Nevertheless, the spatial layout of the site is still largely intact. Diagnostic artifacts indicate that the site was occupied in the late nineteenth and early twentieth centuries. The archeological integrity is moderate. Therefore, it is recommended that 41CV1623 be considered potentially eligible for NRHP listing under Criterion D as a domestic property relative to the agriculture context developed for Fort Hood (Freeman et al. 1999).

### **41CV1625**

#### ***Site Setting***

Site 41CV1625 is a prehistoric lithic scatter located in training area 82. It is plotted on the Fort Hood 7.5-minute topographic quadrangle at UTM zone 14 and located on aerial photo sheet 41. The site occupies an upland slope that descends to an unnamed tributary of Brown's Creek, 200 m south of Jack Mountain. Vegetation is sparse, except along the tributary edge, where mixed juniper and hardwoods form moderately heavy ground cover. The surface of the site has recently been burned. Site elevation is approximately 250 m above mean sea level.

#### ***Work Performed***

On 22 September 1999, a survey crew recorded the site. A site map was produced, a photographic record was made of the site, and the site boundary was recorded using GPS. Site dimensions were defined as ca. 60x60 m ( $3,600 \text{ m}^2$ ) based on the distribution of artifacts. The probability of subsurface archeological deposits in this upland context was minimal, and based on the combination of low archeological potential due to a lack of sediments and safety considerations related to live ordnance, no shovel tests were excavated.

### ***Cultural Materials***

Cultural materials at 41CV1625 were dominated by thin to moderate scatters of unmodified debitage. In addition to debitage, utilized flakes and cores were observed. The densest quantity of cultural materials was concentrated in a 10-m-diameter area, and artifact density decreased away from this central concentration. No artifacts were collected.

### ***Discussion and Assessments***

Though cultural materials are present at 41CV1625, the site is located near a heavily used tank trail. Tracked and wheeled vehicles, ordnance impact, and range fires have all disturbed this site. Therefore, the integrity of the site's surface is low. Additionally, the site is located on an upland landform that is unlikely to contain subsurface archeological deposits in primary context. For these reasons, the archeological research potential of 41CV1625 is low.

### **41CV1626**

#### ***Site Setting***

Site 41CV1626 is a prehistoric lithic scatter located in training area 94. The site is plotted on the Post Oak Mountain 7.5-minute topographic quadrangle at UTM zone 14 and located on aerial photo sheet 48. It occupies an upland slope that descends to Brown's Creek, approximately 1,500 m southeast of Jack Mountain and 800 m northwest of the confluence of Brown's and Cowhouse Creeks. Vegetation consists of scattered juniper and scrub oak, but the surface has been recently burned. Site elevation is approximately 250 m above mean sea level.

#### ***Work Performed***

On 30 September 1999, a survey crew recorded the site. A site map was produced, a photographic record was made of the site, and the site boundary was recorded using GPS. Site dimensions were established as 190x65 m ( $12,350 \text{ m}^2$ ) based on observed artifacts. The probability of subsurface archeological deposits in this upland context is minimal. Based on the combination of low archeological potential due to the lack of sediment, and safety considerations

related to live ordnance, no shovel tests were excavated at this site.

### ***Cultural Materials***

Cultural materials consisted of a sparse scatter of unmodified debitage and cores. Approximately 10–20 flakes and 1 core were present in any given 5x5-m area. In addition to artifacts, moderate quantities of low-grade chert cobbles were noted; however, these did not appear to have been exploited as a resource.

### ***Discussion and Assessments***

Site 41CV1626 is a low density lithic scatter located on an upland slope. Observable deposits in this area are thin. Bedrock is exposed in many locations, and ordnance impact craters provide exposures to indicate that deposition is generally less than 10 cm thick. Although cultural materials are present, the probability of finding buried archeological deposits in primary context is negligible. Therefore, the archeological research potential of this site is low.

## **41CV1627**

### ***Site Setting***

Site 41CV1627 is a prehistoric lithic scatter located in training area 94. The site is plotted on the Post Oak Mountain 7.5-minute topographic quadrangle at UTM zone 14 and located on aerial photo sheet 48. It is situated on an upland slope and straddles a 1-m-high escarpment that descends from the upland to Brown's Creek, approximately 1,000 m northwest of the confluence of Brown's and Cowhouse Creeks. Vegetation is sparse, except along the creek edge, where mixed juniper and hardwoods form a moderately heavy ground cover. The surface of the site has recently been burned. Site elevation is approximately 250 m above mean sea level.

### ***Work Performed***

On 27 September 1999, a survey crew recorded the site. A site map was produced, a photographic record was made of the site, and the site boundary was recorded using GPS. Site dimensions were defined as 70x70 m (4,900 m<sup>2</sup>)

based on artifact distribution. The probability of subsurface archeological deposits in this upland context was minimal, so based on the combination of low archeological potential due to a lack of sediment and safety considerations related to live ordnance, no shovel tests were excavated at this site.

### ***Cultural Materials***

Cultural materials consisted of a diffuse scatter of unmodified debitage, utilized flakes, and cores. Discernable concentrations of artifacts were noted above the shallow escarpment, but they appeared to be redeposited due to recent erosion.

### ***Discussion and Assessments***

Site 41CV1627 is a low density lithic scatter located on an upland slope. Observed deposits in this area are thin. Bedrock is exposed in many locations, and exposures provided by the escarpment indicate that deposition is generally only 10–20 cm thick. Although cultural materials are present, the probability of finding buried archeological deposits in a primary context is negligible. Therefore, the archeological research potential of this site is low.

## **41CV1628**

### ***Site Setting***

Site 41CV1628 is a prehistoric lithic scatter located in training area 82. The site is plotted on the Fort Hood 7.5-minute topographic quadrangle at UTM zone 14 and located on aerial photo sheet 40. It is located on a steep upland slope overlooking Brown's Creek, approximately 1,000 m east of Jack Mountain. Vegetation is sparse and includes isolated junipers and scrub oak; the surface of the site has recently been burned. Site elevation is approximately 230 m above mean sea level.

### ***Work Performed***

On 27 September 1999, a survey crew recorded the site. A site map was produced, a photographic record was made of the site, and the site boundary was recorded using GPS. Site dimensions were recorded as 100x60 m (6,000 m<sup>2</sup>). The

probability of subsurface archeological deposits in this upland context was minimal, so based on the combination of low archeological potential due to a lack of sediment and safety considerations related to live ordnance, no shovel tests were excavated at this site.

#### ***Cultural Materials***

Cultural materials observed included 1 uniface, 1 biface, 4 cores, and 50–60 flakes. One biface and one Scallorn arrow point (see Figure 4) were collected.

#### ***Discussion and Assessments***

Site 41CV1628 is a low density lithic scatter located on an upland slope. Observable deposits in the area are thin, and bedrock is exposed in many locations. While only minor impacts from military activities were noted, recent burning has increased sheet erosion on this site. Although cultural materials are present, the probability of finding buried archeological deposits in primary context is negligible. Therefore, the archeological research potential of this site is low.

### **41CV1629**

#### ***Site Setting***

Site 41CV1629 is a prehistoric lithic scatter located in training area 94. The site is plotted on the Post Oak Mountain 7.5-minute topographic quadrangle at UTM zone 14 and located on aerial photo sheet 40. It is located on an upland knoll and slope just east of Brown's Creek. Vegetation is sparse and includes isolated junipers and scrub oak; the surface has recently been burned. Soil deposition appears to be less than 5 cm, as bedrock is exposed across most of the site. Site elevation is approximately 230 m

above mean sea level.

#### ***Work Performed***

On 25 October 1999, a survey crew recorded the site. A site map was produced, a photographic record was made of the site, and the site boundary was recorded using GPS. Site dimensions were established as 375x175 (65,625 m<sup>2</sup>) based on the distribution of artifacts. The probability of subsurface archeological deposits in this upland context was minimal. Based on this lack of sediment, along with safety considerations related to live ordnance, no shovel tests were excavated at this site.

#### ***Cultural Materials***

The cultural materials observed were dominated by unmodified debitage followed by (in decreasing frequency) bifaces, biface fragments, and cores. Though cultural materials were present across the site, a dense concentration of lithic artifacts, ca. 15 m in diameter, was observed on the top of a knoll overlooking Brown's Creek. No cultural materials were collected.

#### ***Discussion and Assessments***

Site 41CV1629 is a moderately dense lithic scatter located on an upland slope. Observable deposits in this area are thin, and bedrock is exposed across most of the site. Recent burning has increased the impacts of sheet erosion on this site. Most of the artifacts observed are probably redeposited as a result of erosion and vehicle traffic. Although relatively dense cultural materials are present, the probability of finding buried archeological deposits in primary context is negligible. Therefore, the archeological research potential of this site is low.

## **SUMMARY AND NATIONAL REGISTER RECOMMENDATIONS**

### **3**

Within the Clabber Creek and Jack Mountain Ranges of the live fire area of Fort Hood, 1,729 acres were surveyed. The project identified a total of 21 sites containing 23 defined components; 15 components were reevaluated/reassessed, while 8 were discovered by this survey. Ten of the 23 components are historic, while 13 are prehistoric. The potential for buried deposits was evaluated at all of the sites, including the five prehistoric sites specifically slated for reassessment. Subsurface testing was limited to only four sites where shovel probes were used to evaluate the potential for buried deposits. Only one of these sites was further investigated (with 18 shovel tests). This chapter presents assessment of archeological integrity and research potential for each site, along with National Register and management recommendations.

These sites are assessed in terms of eligibility for listing in the National Register of Historic Places (NRHP) based on the criteria established by the U.S. Department of the Interior. If a site is significant in American history, architecture, engineering, or culture, it is eligible for inclusion in the NRHP and worthy of protection, avoidance, or mitigation through data recovery. Significant properties are those that possess integrity of location, design, setting, materials, workmanship, feeling, and association, and:

- A. that are associated with events that have made a significant contribution to the broad patterns of our history; or
- B. are associated with the lives of persons significant in our past; or
- C. that embody the distinctive characteristics of a type, period, or method of

construction or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or

- D. that have yielded or may be likely to yield information important in prehistory or history [U.S. Department of the Interior 1997:2].

#### **HISTORIC SITES**

The 10 historic components include 9 farm/ranch sites and the New Graham Cemetery. Seven of these were previously recorded and had been recently evaluated by previous researchers (Table 8). The integrity assessments were made by Blake (2001:Appendix A) based on a review of the archeological site files, while National Register eligibility recommendations were made by Freeman et al. (1999:Appendix E).

The archeological integrity assessments in this report were made following the methodology described by Blake (2001:10–11). Archeological integrity was classified as low, moderate, or high. If a site's condition was destroyed or poor, or if the estimated surface area affected was more than 70 percent, archeological integrity was considered to be low. Sites identified as secondary deposits, trash dumps, or isolated features without associated artifacts were also considered to have low archeological integrity because they either no longer occupied their primary location or were otherwise lacking association and context. A rating of moderate archeological integrity was assigned to a site if its condition was rated as fair or better and it had both an artifact assemblage

**Table 8. Summary of previous archeological integrity assessments and National Register evaluations for previously recorded historic sites\***

Site	Site Type	Archeological Chronology	Archeological Integrity	Archival Date of Initial Occupation	Applicable NRHP Criteria	Applicable NRHP Context	NRHP Recommendation
41CV421	farm/ranch	late 19th–mid 20th century	moderate	1909	D	agriculture	potentially eligible
41CV425	farm/ranch	mid 19th–early 20th century	low	1868	A, B	rural development	eligible
41CV445	farm/ranch	late 19th century–Depression	low	1875	none	none	not eligible
41CV450	farm/ranch	late 19th–early 20th century	moderate	1855	D	agriculture	potentially eligible
41CV466	farm/ranch	late 19th–Depression	high	1872	D	agriculture	potentially eligible
41CV952	farm/ranch	late 19th century–Depression	moderate	1857	D	agriculture	potentially eligible
41CV1475	cemetery	late 19th–early 20th century	moderate	–	A, D	rural development	eligible

\* National Register recommendations as presented by Freeman et al. (1999:Appendix E); archeological integrity as defined by Blake (2001:Appendix A).

and recognizable surface features. In addition, estimated surface area impacted had to be less than 70 percent. Due to the number and degree of impacts commonly reported at historic sites on Fort Hood, a rating of high archeological integrity was used sparingly. A site had to have a diagnostic artifact assemblage, multiple recognizable features, a very low percentage of surface area affected, and be in good condition or better to receive a high rating. Exceptional site types, such as cemeteries, schools, or those with firm evidence of early occupation, were given extra consideration because of their potential to yield important data.

Archeological integrity assessments, National Register recommendations, and management recommendations were formulated for each of the historic components recorded or reassessed during the 1999 live fire area survey project (Table 9). Notably, the current archeological integrity assessments for the seven previously recorded sites are the same as those made by the previous researchers, and the National Register recommendations are also the same for each site. The 1999 field investigations provide additional site data, but the conditions of most of the sites were found to have changed very little since they were last revisited. The only exception is that the integrity of the New Graham Cemetery (41CV1475) had deteriorated further due to extensive vehicle traffic and ordnance impacts. As with the other cemeteries on Fort Hood, this one is recommended as eligible for listing on the NRHP under Criterion A and potentially eligible under Criterion D. Despite the fact that the graves at this cemetery were moved by the U.S. Army in 1942, the site is still obviously a cemetery location that may serve as a traditional cultural place to former occupants of the Fort Hood lands. Additional archival and oral history research could provide important information. In addition, it may still retain archeological potential because of the possibility that unmarked graves were overlooked and not exhumed during the World War II-era cemetery relocation project.

The remaining three historic sites—41CV1621, 41CV1622, and 41CV1623—have been evaluated relative to the agricultural and rural development contexts developed by Freeman et al. (1999), and National Register assessments have been made. Because the three new sites are on properties that have already been

researched for previously recorded sites (Stabler 1999), it was possible to utilize that information. None of the sites are recommended as eligible relative to National Register Criteria A or B.

Of the three newly recorded historic sites, 41CV1622 has low archeological integrity and is recommended as not eligible for listing in the NRHP under Criterion D. The other two, 41CV1621 and 41CV1623, have moderate archeological integrity. They contain multiple intact features that demonstrate intersite spatial relationships and associated diagnostic artifact assemblages. They are recommended as potentially eligible under Criterion D because they could yield important information about history. However, additional archeological work is recommended for these sites and any of the sites recommended as potentially eligible under Criterion D (see Table 9). This additional work should be undertaken only after a comprehensive research design and data recovery plan has been developed. Such a plan is needed before the potential of these historic sites can be adequately evaluated relative to a set of significant research problems and goals.

## PREHISTORIC SITES

Of the 21 sites defined in the live fire project area (see Tables 1 and 2), 13 have prehistoric components. These consist of 10 lithic scatters, 2 rockshelters, and 1 open campsite. All were evaluated relative to the significance criteria defined by Ellis et al. (1994:185–188; see also Kleinbach et al. 1999:20–21). All 13 sites are recommended as not eligible for listing in the NRHP (Table 10). Each site exhibits a fatal flaw related to lack of archeological integrity. The lithic scatters and open campsite are located on geological landforms (i.e., upland slopes) that have little or no deposition, so there is little potential that they contain intact buried cultural deposits. In addition, the cultural remains present at these sites are in secondary and/or disturbed contexts, further limiting their research potential. The two rockshelters are completely devoid of cultural deposits. Although cultural materials were reported at both rockshelters in 1983–1984, none were observed during the 1999 investigation, and deposits inside the shelters had been removed by recent erosion and/or human activities. No further work is recommended for any of the prehistoric sites.

**Table 9. Summary of National Register assessments and management recommendations for historic sites**

Site	Site Type	Archeological Integrity Assessment	Applicable		NRHP Criteria	Applicable Context	Recommendation	Management Recommendations*
			NRHP	NRHP				
41CV421	farm/ranch	moderate	D	agriculture	A, B	rural development	potentially eligible	archival research, archeological work
41CV425	farm/ranch	low	none	—	D	agriculture	eligible/eligible	archival research, oral history
41CV445	farm/ranch	low	—	—	D	agriculture	not eligible	archival research, archeological work
41CV450	farm/ranch	moderate	D	—	D	agriculture	potentially eligible	archival research, archeological work
41CV466	farm/ranch	high	D	—	D	agriculture	potentially eligible	archival research, archeological work
41CV952	farm/ranch	moderate	D	—	D	agriculture	potentially eligible	archival research, archeological work
41CV1475	cemetery	low	A, D	—	A, D	rural development	eligible/ potentially eligible	archival and oral history research, archeological work
41CV1621	farm/ranch	moderate	D	—	D	agriculture	potentially eligible	archival research, archeological work
41CV1622	farm/ranch	low	none	—	D	agriculture	not eligible	no further work
41CV1623	farm/ranch	moderate	D	—	D	agriculture	potentially eligible	archival research, archeological work

\* Further archeological work is recommended only after a historic sites research design/data recovery plan is developed.

*Chapter 3: Summary and National Register Recommendations*

**Table 10. Summary of National Register assessments and management recommendations for prehistoric sites**

Site	Site Type	Archeological Integrity Assessment	NRHP Recommendation	Management Recommendation
41CV423	lithic scatter	low	not eligible	no further work
41CV424	lithic scatter	low	not eligible	no further work
41CV445	lithic scatter	low	not eligible	no further work
41CV583	rockshelter	low	not eligible	no further work
41CV712	open campsite	low	not eligible	no further work
41CV719	lithic scatter	low	not eligible	no further work
41CV791	rockshelter	low	not eligible	no further work
41CV952	lithic scatter	low	not eligible	no further work
41CV1625	lithic scatter	low	not eligible	no further work
41CV1626	lithic scatter	low	not eligible	no further work
41CV1627	lithic scatter	low	not eligible	no further work
41CV1628	lithic scatter	low	not eligible	no further work
41CV1629	lithic scatter	low	not eligible	no further work

## REFERENCES CITED

- Baker, Joan E., Martha Doty Freeman, and Marie E. Blake  
2000 *Historical Research and Archeological Investigations at the Williamson Creek Cemetery, 41TV1684, Travis County, Texas.* Technical Reports No. 49. Prewitt and Associates, Inc., Austin.
- Blair, W. Frank  
1950 The Biotic Provinces of Texas. *The Texas Journal of Science* 2(1):93–117.
- Black, Steven L., Linda W. Ellis, Darrel G. Creel, and Glenn T. Goode  
1997 *Hot Rock Cooking on the Greater Edwards Plateau: Four Burned Rock Midden Sites in West Central Texas.* 2 vols. Texas Archeological Research Laboratory, Studies in Archeology 22, University of Texas at Austin; Texas Department of Transportation, Archaeology Studies Program, Report 2. Austin.
- Blake, Marie E.  
2001 Archeological Investigations and Integrity Assessments of Historic Sites on Fort Hood, Texas. Archaeological Resource Management Series, Research Report No. 41. United States Army, Fort Hood.
- Boyd, Douglas K.  
1999 Assessment of Traditional Cultural Places on Fort Hood, Texas. Unpublished manuscript on file in Cultural Resources Management Office, Fort Hood.
- Briuer, Frederick L., and George B. Thomas  
1986 *Standard Operating Procedure for Field Surveys.* Archeological Resource Management Series, Research Report No. 13. United States Army, Fort Hood.
- Carlson, David L., Shawn Bonath Carlson, Frederick L. Briuer, Erwin Roemer Jr., and William E. Moore  
1986 *Archaeological Survey at Fort Hood, Texas:* *Fiscal Year 1983, The Eastern Training Area.* Archaeological Resource Management Series, Research Report No. 11. United States Army, Fort Hood.
- Carlson, Shawn Bonath, David L. Carlson, H. Blaine Ensor, Elizabeth A. Miller, and Diane E. Young  
1988 *Archaeological Survey at Fort Hood, Texas: Fiscal Year 1985, The Northwestern Training Area.* Archaeological Resource Management Series, Research Report No. 15. United States Army, Fort Hood.
- Carlson, Shawn Bonath, H. Blaine Ensor, David L. Carlson, Elizabeth A. Miller, and Diane E. Young  
1987 *Archaeological Survey at Fort Hood, Texas: Fiscal Year 1984.* Archaeological Resource Management Series, Research Report No. 14. United States Army, Fort Hood.
- Carter, Emily Suzanne, and Crystal Sasse Ragsdale  
1976 *Biegel Settlement: Historic Sites Research, Fayette Power Project.* Research Report No. 59. Texas Archeological Survey, The University of Texas at Austin.
- Clifton, Robert T.  
1970 *Barbs, Prongs, Points, Prickers and Sticklers: A Complete and Illustrated Catalogue of Antique Barbed Wire.* University of Oklahoma Press, Norman.
- Collins, Michael B.  
1995 Forty Years of Archeology in Central Texas. *Bulletin of the Texas Archeological Society* 66:361–400.
- Dibble, David S., Henry Moncure, and Frederick L. Briuer  
1989 *Archaeological Survey at Fort Hood, Texas Fiscal Year 1980 (Fall).* Archaeological Resource

*Archeological Survey and Site Reassessments in the Live Fire Area*

- Management Series, Research Report No. 4. United States Army, Fort Hood.
- Ellis, G. Lain, Christopher Lintz, W. Nicholas Trierweiler, and Jack M. Jackson  
1994 *Significance Standards for Prehistoric Cultural Resources: A Case Study from Fort Hood, Texas*. USACERL, Technical Report CRC-94/04. Fort Hood Archeological Resource Management Series, Research Report No. 30. United States Army Corps of Engineers, Construction Engineering Research Laboratories, Champaign, Illinois.
- Ferguson, Bobbie H.  
1993 ". . . and they laid them to rest in the little plot beside the Pecos" Final Report on the Relocation of Old Seven Rivers Cemetery, Eddy County, New Mexico. Denver Office, Bureau of Reclamation, United States Department of the Interior.
- Fike, Richard E.  
1987 *The Bottle Book: A Comprehensive Guide to Historic, Embossed Medicine Bottles*. Peregrine Smith Books, Salt Lake City.
- Florence, Gene  
1996 *The Collector's Encyclopedia of Depression Glass*. Twelfth edition. Schroeder Publishing Company, Inc., Paducah, Kentucky.
- Fort Hood Cemetery Records  
n.d. Transcript on file, Cultural Resources Management Program, Fort Hood.
- Fox, Anne  
1984 *A Study of Five Historic Cemeteries at Choke Canyon Reservoir, Live Oak and McMullen Counties, Texas*. Choke Canyon Series, Vol. 9. Center for Archeological Research, The University of Texas at San Antonio.
- Freeman, Martha Doty, Amy E. Dase, and Marie E. Blake  
1999 *Agriculture and Rural Development on Fort Hood Lands, 1849–1942; National Register Assessments of 710 Historic Archeological Properties*. Archeological Resource Management Series, Research Report No. 42. Draft. United States Army, Fort Hood.
- Gates, William C., Jr., and Dana E. Ormerod  
1982 The East Liverpool Pottery District: Identification of Manufacturers and Marks. *Historical Archaeology* 16:1–2.
- Godden, Geoffrey A.  
1964 *Encyclopaedia of British Potter and Porcelain Marks*. Bonanza Books, New York.
- Hayward, O. T., Peter M. Allen, and David L. Amesbury  
1990 Lampasas Cut Plain—Evidence for the Cyclic Evolution of a Regional Landscape, Central Texas. *Geological Society of America Guidebook 2*, p. 122. Dallas, Texas.
- Jackson, Jack M.  
1994 History of the Project. In *Significant Standards for Prehistoric Cultural Resources: A Case Study from Fort Hood, Texas*, by G. Lain Ellis, Christopher Lintz, W. Nicholas Trierweiler, and Jack M. Jackson, pp. 21–25. USACRL Technical Report CRC-94/04. U.S. Army Corps of Engineers, Construction Engineering Research Laboratories, Champaign, Illinois.
- Jasper, Joanne  
1996 *Turn of the Century American Dinnerware, 1880s to 1920s*. Collector Books, Paducah, Kentucky.
- Jenks, Bill, and Jerry Luna  
1990 *Early American Pattern Glass 1850–1910*. Wallace Homestead Book Company, Radnor, Pennsylvania.
- Jones, Olive, and Catherine Sullivan  
1989 *The Parks Canada Glass Glossary for the Description of Containers, Tableware, Flat Glass, and Closures*. Studies in Archaeology, Architecture, and History. National Historic Parks and Sites, Canadian Parks Service, Environment, Canada, Ottawa, Ontario.
- Kleinbach, Karl, Gemma Mehalchick, Douglas K. Boyd, and Karl W. Kibler  
1999 *National Register Testing of 41 Prehistoric Archeological Sites on Fort Hood, Texas: The 1996 Season*. Archeological Resource Management Series, Research Report No. 38. United States Army, Fort Hood.
- Kovel, Ralph M., and Terry H. Kovel  
1986 *Kovel's New Dictionary of Marks: Potter and Porcelain 1850 to the Present*. Crown Publishing, Inc., New York.
- Lebo, Susan A.  
1987 Local Utilitarian Stonewares: A Diminishing Artifact Category. In *Historic Buildings, Material Culture, and the People of the Prairie Margin*, by David H. Jurney and Randall W. Moir, pp. 121–142. Richland Creek Tech-

## References Cited

- nical Series Vol. 5. Southern Methodist University, Dallas.
- 1988 *An Archeological and Bioarchaeological Perspective: The Tucker (41DT104) and Sinclair (41DT105) Cemeteries of Delta County, Texas.* Institute of Applied Sciences, North Texas State University.
- Majewski, Teresita, and Michael J. O'Brien  
 1987 The Use and Misuse of Nineteenth-Century English and American Ceramics in Archaeological Analysis. In *Advances in Archeological Method and Theory*, vol. 11, edited by Michael B. Schiffer, pp. 97–209. Academic Press, San Diego.
- McCaleb, Nathan L.  
 1985 *Soil Survey of Coryell County, Texas.* United States Department of Agriculture, Soil Conservation Service, in cooperation with Texas Agricultural Experiment Station and United States Department of the Army, Fort Hood, Texas.
- McNerney, Katheryn  
 1981 *Blue and White Stoneware.* Collector Books, Paducah, Kentucky.
- Mueller-Wille, C. S., and David L. Carlson  
 1990a *Archaeological Survey at Fort Hood, Texas: Fiscal Year 1986, The Shoal Creek Watershed.* Archaeological Resource Management Series, Research Report No. 20. United States Army, Fort Hood.
- 1990b *Archaeological Survey at Fort Hood, Texas: Fiscal Year 1986, Other Training Areas.* Archaeological Resource Management Series, Research Report No. 21. United States Army, Fort Hood.
- Natural Fibers Information Center  
 1987 *The Climates of Texas Counties.* Bureau of Business Research, in cooperation with the Office of the State Climatologist, Texas A&M University. The University of Texas at Austin.
- Noël Hume, Ivor  
 1969 *A Guide to Artifacts of Colonial America.* Vintage Books, New York.
- Nordt, Lee C.  
 1992 *Archaeological Geology of the Fort Hood Military Reservation, Fort Hood Texas.* Archaeological Resource Management Series, Research Report No. 25. United States Army, Fort Hood.
- Pickvet, Mark  
 1995 *The Official Price Guide to Glassware.* House of Collectibles, New York.
- Skinner, S. Alan, Frederick L. Briuer, George B. Thomas, and Ivan Show  
 1981 *Initial Archaeological Survey at Fort Hood, Texas: Fiscal Year 1978.* Archaeological Resource Management Series, Research Report No. 1. United States Army, Fort Hood.
- Skinner S. Alan, Frederick L. Briuer, W. C. Meiszner, and Ivan Show  
 1984 *Archaeological Survey at Fort Hood, Texas: Fiscal Year 1979.* Archaeological Resource Management Series, Research Report No. 2. United States Army, Fort Hood.
- Stabler, Jennifer A.  
 1999 *Historical Research Preliminary to National Register Assessments of 719 Historic Sites at Fort Hood, Bell and Coryell Counties, Texas.* Archaeological Resource Management Series, Research Report No. 36. United States Army, Fort Hood.
- Steinbomer, Robert A.  
 1982 *Brickmaking in Texas: A History of the Industry and Its Product.* Draft m.s. submitted to the Texas Historical Commission, Austin.
- Stirn, Carl P.  
 1990 *Turn-of-the-Century Dolls, Toys, and Games, The Complete Illustrated Carl P. Stirn Catalogue from 1893.* Reprint, originally published 1893. Dover Publications, Inc. New York.
- Sussman, Lynne  
 1997 *Mocha, Banded, Cat's Eye, and Other Factory Made Slipware.* Studies in Northeast Historical Archaeology No. 1. Boston University, Boston Massachusetts.
- Toulouse, Julian Harrison  
 1969 *Fruit Jars.* Thomas Nelson and Sons, Camden, New Jersey and Everybodys Press, Hanover Pennsylvania.
- 1971 *Bottle Makers and Their Marks.* Thomas Nelson, Inc., New York.
- Trierweiler, W. Nicholas, G. Lain Ellis, and J. Michael Quigg  
 1995 History of Archaeological Study at Fort Hood. In *NRHP Significance Testing on 57 Prehistoric Archaeological Sites on Fort*

*Archeological Survey and Site Reassessments in the Live Fire Area*

- Hood, Texas, Volume 1*, edited by James T. Abbott and W. Nicholas Trierweiler, pp. 27–30. Archaeological Resource Management Series, Research Report No. 34. United States Army, Fort Hood.
- United States Department of the Interior  
1997 *How to Apply the National Register Criteria for Evaluation*. National Register Bulletin, National Park Service, Cultural Resources.
- Walker, Phillip  
1994 *The Victorian Catalogue of Tools for Trades and Crafts*. Studio Editions, London.
- Ward, Russell B., Marie E. Blake, Amy E. Dase, and Martha Doty Freeman  
2000 *Historic Research of 401 Historic Sites at Fort Hood, Bell and Coryell Counties, Texas*. Archeological Resource Management Series, Research Report No. 43. United States Army, Fort Hood.